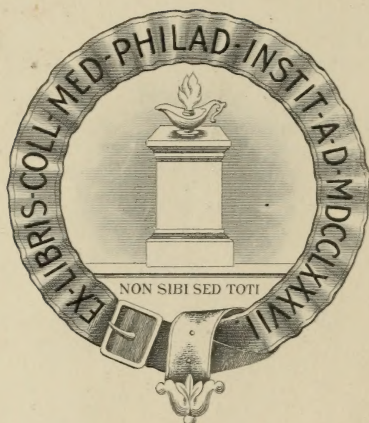


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THE HAHNEMANNIAN MONTHLY.

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SOME ADDITIONAL OBSERVATIONS CONCERNING THE TREATMENT OF DIABETES.

BY

CLARENCE BARTLETT, M.D., PHILADELPHIA.

(Read before the Homœopathic Medical Society of Reading, Pa., November 11, 1915).

IN September, 1913, I read before the Homœopathic Medical Society of Pennsylvania, an essay on the treatment of diabetes. In this communication, I gave a review of my personal practice in the treatment of glycosuric cases, based upon the principles elaborated by Von Noorden and his followers. It will be of advantage to my hearers if I present at the outset of this address a general abstract of the communication to which I have referred.

1. Determine the condition of the patient at the time he comes under treatment by making a most complete examination both as to the history and the physical findings. In view of the many clinical ramifications of glycosuria as a symptom, it is of importance that the general examination of the patient shall be of a most searching character. As to the glycosuria itself, let the urinary examination be made after the patient has been on ordinary general diet for a period of two or three days. It is of the highest importance to weigh the patient and note his condition in this respect at frequent intervals throughout the care of the case.

2. After the determination of the patient's *status præsens*, he should be placed upon a standard diet for a period ranging

from three days to one week. During this period daily urinary examinations must be made, and careful watch maintained for signs of acidosis. Most of the standard diets recommended by prominent authorities are available for this purpose. It is foolish for the physician to construct a special one of his own devising for the mere sake of "being different." He is wiser if he will but direct his inventive faculties to other channels. Particular periods of the year may make it inconvenient to obtain certain of the articles prescribed excepting at a prohibitive price, when, of course, suitable substitutes may be made. Otherwise, I advise most strongly adherence to the known and tried. The standard diets advised were the following:

(a) THE VON NOORDEN STANDARD DIET AS USED BY THE STAFF OF JOHNS HOPKINS HOSPITAL: *Breakfast*, 7. 30 A. M.—200 c.c. (3vj) of tea or coffee; 150 grammes (3iv) of beef-steak, mutton chop (without bone), or boiled ham; one or two eggs.

Luncheon, 12.30 P. M.—200 grammes (3vi) cold roast beef; 60 grammes celery (3ij); fresh cucumbers or tomatoes with vinegar, olive oil, pepper and salt to taste; 20 c.c. (3v) whiskey, with 400 c.c. (3xiii) water; 60 c.c. (3ij) coffee without milk or sugar.

Dinner, 6 P. M.—200 c.c. clear bouillon; 250 grammes (3viiss) roast beef; 10 grammes of butter (3ijss); 80 grammes (3ij) green salad with 10 grammes (3ijss) vinegar and 20 grammes (3v) olive oil, or three tablespoonfuls of some well-cooked green vegetable, three sardines a l'huile; 20 c.c. (3v) whisky with 400 c.c. (3xiiij) water.

Supper, 9 P.M.—Two eggs; 400 c.c. (3xiiij) water.

(b) THE JANEWAY DIET LIST IN USE AT THE PRESBYTERIAN HOSPITAL, NEW YORK: *Breakfast*.—2 eggs; ham, 90 grm. (3 oz.); coffee with 45 grm. (1½ oz.) cream; butter, 15 grm. (½ oz.) on the biscuit during the test period; cooked with the eggs if no biscuit or bread is taken.

Luncheon.—Meat, 120 grm. (4 oz.); green vegetables from list, 2 tablespoonfuls; white wine, 2 claret glasses (6 oz.) or whisky or brandy, 1 oz.; butter, 15 grm. (½ oz.), with the green vegetable if no biscuit or bread is taken.

Afternoon tea with 15 grm. (½ oz.) cream.

Dinner.—Any clear soup; fish, 90 grm. (3 oz.); meat (beef, turkey, or chicken) 121 grm. (¼ lb.); green vegetables from

list, 2 tablespoonfuls; salad with 15 grm. ($\frac{1}{2}$ oz.) oil in the dressing; cream cheese, 30 grm. (1 oz.); white wine, 6 oz.; whisky or brandy, 1 oz.; demi-tasse of coffee; butter, 30 grm. (1 oz.) on the fish, meat, and green vegetables if no bread or biscuit is taken.

Bed Time.—Bouillon with 1 raw egg.

(c) BASSLER'S STANDARD DIET IS AS FOLLOWS: *Breakfast.*—Coffee with $1\frac{1}{2}$ oz. of cream; 2 eggs with $\frac{1}{2}$ oz. of butter; bacon, 1 oz.

Luncheon.—2 eggs; bacon, 1 oz.; 2 ounces of lamb chops, ham, steak, chicken, or fish broiled with butter ($\frac{1}{2}$ oz.); vegetables from list; wine, 6 oz.; or whisky, 1 oz. with water.

Dinner.—Any clear soup; 4 oz. of roast pork, beef, mutton, turkey, chicken, lamb; green vegetables; salad with half oz. of oil dressing; 1 oz. of cream cheese; wine, 6 oz.; whisky, 1 oz.; coffee.

As part of my former paper was incorporated a list of foods graded according to their carbohydrate content as follows:

Food containing 5% or less of carbohydrate: Lettuce, spinach, sauer-kraut, string beans, celery, asparagus, cucumbers, Brussels sprouts, sorrel, endive, plain pickles, ripe olives, grape fruit, cauliflower, tomatoes, rhubarb, egg plant, leeks, beet greens, watercress, butternuts, clams, scallops, and fish roe.

6% or less: Cabbage, radishes, pumpkins, kohl rabbi, oysters, liver.

10% approximately: Onions, squash, turnip, carrots, okra, beets, mushrooms, lemons, oranges, cranberries, strawberries, blackberries, gooseberries, peaches, pineapple, watermelon, muskmelon.

15% approximately: Green peas, artichokes, parsnips, canned lima beans, apples, pears, apricots, cherries, currants, raspberries, huckleberries, pecans, filberts, walnuts, pistachios, and bechnuts.

20% and over: Potatoes, shell beans, baked beans, green corn, boiled rice, boiled macaroni, plums, bananas, and almonds.

It will be observed that the above lists are notable for their freedom from patented foods, gluten bread, saccharine, and other substances having a traditional reputation in diabetes. I condemned them two years ago, and still hold to the opinion then expressed.

3. In a large proportion of the cases, the urine became sugar

free in a period ranging from 36 to 72 hours. The standard diet may be continued for a few days longer, after which the patient's tolerance is to be tested. For this purpose, the best carbohydrate food is ordinary good wheat bread, such as the patient likes and must have if he is to be happy. Ounce after ounce of that substance is added to the standard diet each additional two days until sugar reappears in the urine. The tolerance for bread having been established, the patient is now permitted to indulge in a daily allowance of two-thirds of the maximum amount taken, the urine remaining sugar free. In advising diet thereafter in order to give the patient a suitable variety, it was suggested that various carbohydrate foods could be substituted for a portion of the bread according to their carbohydrate content. For example, potatoes and rice possessing one-half the carbohydrate content of good wheat bread may be substituted in the proportion of two ounces of either for one ounce of bread.

4. Should signs of acidosis intervene, the patient must be placed at once upon an exclusive carbohydrate diet and bicarbonate of soda administered in enormous doses, even to the extent of three or four ounces daily. Ten or fifteen grain doses three times daily are utterly useless. Following the return of the patient to his previous condition, various dietetic plans may be followed.

5. If tolerance is not satisfactory or signs of acidosis threaten, we may place the patient upon the Von Noorden oat-meal diet, or the Mosso potato cure, or the Strauss rice diet. Each of these carries out the same principle, namely subsistence for a few days upon some one particular carbohydrate food. Attempts should not be made to improve upon either of the authorities by mixing the foods, for their value depends upon the limitation of the diet to just the one carbohydrate. Following the carbohydrate days (usually four or five) the patient's tolerance may be tested once more, and usually it will be found to have increased. The influence of the oat meal diet may be to produce a temporary increase in the glycosuria, following which that phenomenon diminishes markedly. It may however cause a complete disappearance of that symptom. The oat-meal diet is prepared as follows: 8 oz. of oat-meal is cooked thoroughly in a double boiler for at least three hours with a minimum addition of water. Towards the end of the cooking, 8 oz. of butter are added with salt and pepper to

suit the patient's taste. This constitutes the daily allowance of food. In addition the patient should take plain coffee; light white wine 8 oz. or cognac, 2 oz. The white of six eggs may be added to the oat-meal porridge if desired. The entire diet consists of protein, 63 gm. (2 oz.); nitrogen, 16.8 gm. ($\frac{1}{2}$ oz.); carbohydrate, 170 gm. ($5 \frac{2}{3}$ oz.); fat, 212 gm. (7 oz.); total calories, 3300.

Following upon the oat-meal days, the patient's tolerance is to be tested once more, and almost invariably, it is found to have been increased, and a moderately severe case of diabetes to have been converted into a mild one. Subsequently the patient is to be submitted to oat-meal periods according to the judgment of the physician as dictated by the progress of the illness.

The days of carbohydrate feeding must not be looked upon as anything else than indicated by the words "days of carbohydrate feeding." The exclusive carbohydrate is for the purpose of increasing tolerance, and is not a permanent system of feeding.

6. As an alternative diet to increase tolerance, and to diminish acidosis, we have the so-called green days. The rationale of this temporary diet is its ability to give rest to the metabolic functions, and thus raise the tolerance of sugars made from the proteins. The articles comprising the list for the day include straight coffee, bacon in small quantities, one or two eggs, spinach, lettuce, asparagus, tea, and whisky (the latter in small quantity.) The nutritive value of this diet is very low, and is practically a starvation diet which puts something solid into the stomach.

The following is a sample diet list for a green day as proposed by Janeway:

Breakfast.—1 egg, boiled or poached; cup of black coffee.

Dinner.—Spinach with hard boiled egg; one-half ounce of bacon; salad with half ounce of olive oil; 4 ounces of white wine or one ounce of whisky or brandy.

4.30 P. M.—Cup of beef tea or chicken broth.

Supper.—1 egg, scrambled with tomato and a little butter; bacon, one-half ounce; cabbage, cauliflower, sauerkraut, string beans or asparagus; white wine 4 ounces, or one ounce of brandy or whisky.

7. In some of the severe cases of diabetes, it is evident that

sugar is formed from the proteid food in which case, the so-called limited protein diet of the Presbyterian Hospital, New York, may be prescribed. It is as follows:

Breakfast.—2 eggs; bacon, one-half ounce; coffee with one and half ounces of cream; butter, two-thirds of an ounce.

Luncheon.—1 egg; bacon, one-half ounce; meat, 2 ounces; salad with one-half ounce of oil in the dressing; white wine, 2 claret glasses, or one ounce of whisky or brandy; butter, one and one-third ounce.

Afternoon.—Tea with one-half ounce of cream.

Dinner.—Any clear soup; meat, 3 ounces; vegetables from list, 2 tablespoonfuls; salad with one-half ounce of oil in the dressing; cream cheese, one ounce; white wine, 6 ounces, or whisky or brandy, one ounce; demi tasse of coffee; butter, one ounce.

Bedtime.—Bouillon with 1 raw egg.

This diet may be continued in the cases in which it is indicated for an indefinite period, providing a judicious addition of carbohydrate food be permitted. Experience with the individual patient is our only guide in determining as to the proper balance of proteid and carbohydrate food. I have seen sugar disappear on this diet when the standard Von Noorden diet failed.

8. Cases of diabetes cannot be treated according to any set formula. There are hardly two cases alike in their clinical phases. Individualization is absolutely necessary in treatment. In many cases, the treatment must be an intelligent experimentation along the lines above indicated. Attention to details is absolutely necessary. The supervision of the patient must rest with the physician in charge exclusively. He must give the same faithful care and interest to the diabetic that he gives to cases of typhoid fever, lobar pneumonia, and other acute illnesses. This means examinations at intervals of 24 to 48 hours until tolerance is determined and the patient thoroughly studied. Urinary analyses must be made by the physician himself, and not relegated to outside authorities from whom reports cannot be received without a necessary delay which is fateful to good results.

9. Two years ago, I wrote "Throughout the course of the treatment no matter what may be the plan adopted, close watch should be kept upon the patient's weight, for no course of

treatment can be regarded as progressing favorably if the patient's weight is not maintained or is increasing. I still hold to this opinion. For several days during and following the standard diet, a loss of weight is not unusual, in fact may be expected, but with fair tolerance the patient soon regains his normal standard and maintains it. It is never sufficient to name the articles of food which the patient may or may not take, but it is absolutely essential to specify the daily amounts of each. In other words, until the patient has had experience with treatment, he must live by the scales.

10. In my former paper I said something about the value of rest, and spoke of the importance of exhaustion or fatigue as a cause of acidosis, as taught by my colleague, Dr. O. S. Haines. At the present time, I am more firmly convinced than ever of the importance of rest. It seems to explain the great improvement of the patients in the hospital wards. To my mind, it is one of the most important elements of success in the Allen treatment, to which reference will be made at the close of this paper.

Within the past two years, it has been my fortune to examine several cases of glycosuria which well illustrate the necessity of individualizing cases. One year ago, there was admitted to the surgical wards of Hahnemann Hospital, service of Dr. W. B. Van Lennep, an Italian woman with severe cholecystitis. In the course of the systematic examination in vogue in the hospital glycosuria with diaceturia was discovered. Standard diet failed to eliminate the sugar from the urine. Thereupon I was consulted. The oat-meal diet was then prescribed, and was utterly useless in every respect. Bicarbonate of soda was administered in substantial dosage, and as the patient was getting worse, operation as originally determined was advised. Following upon the same, two per cent. bicarbonate of soda was added to the normal saline for the Murphy enteroclysis, and recovery proceeded without a ripple. Glycosuria and diaceturia promptly disappeared, and the patient left the hospital apparently well in every respect. Murphy in his *Clinics*, reported a case of glycosuria which recovered following drainage of the gall bladder. These experiences together with one which I shall next narrate suggest attention to this particular organ in all patients with so-called diabetes.

About five years ago, a colleague brought to me for advice a mild diabetic, the glycosuria having been discovered in the

course of a systematic examination following an injury to the foot. This patient made a very good recovery, and remained well until eighteen months ago when he was attacked by acute cholecystitis from which he recovered without operation. There was no return of the glycosuria, however.

One of my most successful cases was a man aged 45 treated five years ago. His urine remained free from sugar until last May, at which time he met with a severe automobile accident, and the sugar returned. He came to Philadelphia in August to undergo treatment. When he suspended treatment at hospital five years ago, his tolerance for bread amounted to 16 ounces. This time, the sugar was removed from the urine in 48 hours by standard diet, but his bread tolerance amounted to but 3 ounces. The Von Noorden oat-meal diet was prescribed for three days. Following this the sugar disappeared entirely and did not return when he had taken as much as 7 ounces of bread daily. He was then permitted to go home with an allowance of carbohydrate food equivalent to 4 ounces of bread daily. Thus far the glycosuria has not returned.

A patient aged 50 years was referred to me by Dr. W. C. Barker. The sugar was readily eliminated by standard diet, but tolerance was poor. The patient was not amenable to discipline. Business was always with him more important than health. The interesting point in this case was the low specific gravity of the urine which reduced the copper in the test solution even when its gravity was as low as 1003. Before instituting treatment the gravity was high, 1030; the sugar by fermentation, 2%. It is doubtful if the reducing substance when the gravity was low was really glucose. I know of no report in medical literature of any lower specific gravity than 1010 with glycosuria. The copper reduction took place rather suddenly after the solution has been boiling a few seconds. Glucose does not behave in this way. The patient abandoned treatment before an opportunity for a more exact analysis was had.*

A patient was admitted to my wards in Hahnemann Hospital by Dr. Bickley. All the clinical phenomena, the symptoms, history, laboratory analyses, and the X-ray serials pointed to carcinoma of the stomach, but she had a glycosuria amounting to 3%. According to Dr. Bickley's experience with her the glycosuria antedated the gastric symptoms. The case was

*This patient has since died. I do not know the late particulars of his illness.

hardly considered a good one for operation; but as I felt there might be a chance with operation, and everything was hopeless without one, operation was performed by Dr. H. L. Northrop. Carcinoma of the pylorus with apparently secondary involvement of the head of the pancreas was found. But for the pancreatic involvement the case was an ideal one for resection of the pylorus. A gastro-enterostomy was performed; but the patient died.

A man aged 58 came to me with 5% sugar in his urine. The result of standard diet was prompt and uneventful. Tolerance was low, only five ounces of bread daily. The reaction on the return of the positive testing was peculiar, and showed that the glycosuria was also a pentosuria. At the same time he began to gain rapidly in weight, which in the course of a few days was determined to be due to a rapidly accumulating ascites. He was finally tapped, and following the removal of the fluid, an ill-defined tumor was discovered in the region of the gall bladder. Next he became jaundiced. Finally an exploration was performed by Dr. W. B. Van Lennep, and malignant disease of the gall bladder discovered. The patient did well for three or four days following the operation, and then retrograded, and died in six days following operation.

A very interesting case is one which I have had an opportunity of examining and treating over a year. In the beginning, it was impossible to remove the sugar from the urine by standard diet and with the dieting, diaceturia became more pronounced than before. Five days of oat-meal diet brought about some amelioration of conditions in the way of lessening both glycosuria and diaceturia, the sugar dropping from 8% to less than 1%, and diaceturia became negligible. Next the limited protein diet was prescribed, and to this two ounces of bread or its carbohydrate equivalent were added each day. During the past summer, the patient was seized with an obstinate diarrhœa, which was quite profuse. She was ordered to bed and treated according to ordinary methods without changing the diet. This not helping her, arrow root gruel, boiled milk, milk toast, dry toast, boiled rice, were prescribed, and *mirabile dictu*, the glycosuria disappeared for several days. With establishment of normal bowel action, the glycosuria became as bad as ever. The patient is at present feeling well so far as symptoms are concerned, but has her glycosuria to the extent of a little over 1%. What caused the disappearance of the glyco-

suria? The diarrhœa, the rest in bed, or the change to the strict carbohydrate diet? I have no doubt that the former two were the important factors. In this case the exclusive rice diet has been found to be much more efficient in getting rid of the diaceturia than is the oat meal regime of Von Noorden.

Within the year there has been introduced a new treatment for diabetes known after its discoverer, as the Allen treatment. Briefly it consists in ordering the patient to bed, and denying all food of any kind whatsoever until sugar disappears from the urine. Following this tolerance is tested, but in a somewhat different way from that advocated by Von Noorden and his followers. The essential detail is the very gradual increase of carbohydrate permitted day by day, and the employment of vegetables from the five and ten percent classes for the purpose. The principle upon which the treatment has been founded is that of the Von Noorden green day, which as already stated is but a limited starvation plan, and "gives rest to the metabolic functions and thus raises the tolerance of sugars made from the proteins."

Its advocates are wildly enthusiastic over it, and make claims that are almost unbelievable. The treatment necessarily gives rise to considerable loss of strength and weight, which they regard as of no importance whatever. Herein they are at variance with all established precedent. The only advantage that I can see from the weakness thus occasioned is the obvious necessity on the part of the patient lessening his physical and mental activities. The testing of the patient's tolerance being accomplished by the daily addition of vegetables from the 5% class at first, and later from the 10% class, the process is necessarily slow, and indeed occupies the patient's attention so thoroughly as to make him readily amenable to discipline. The absolute rest rendered necessary during the period of starvation is not without its therapeutic effect. We have noticed in our ward cases that the sugar percentage not infrequently drops one-half on rest alone. At my request, Dr. G. Morris Golden tried this treatment on two cases in Hahnemann Hospital wards. Both were bad ones with gangrene. The sugar disappeared from the urine as predicted by the originator, and that too without diaceturia. Although sugar returned in both when foods from the 20% class were prescribed, Golden was favorably impressed with the treatment. From what I can see, the Allen treatment is well worthy of professional confi-

dence, but it is not a cure-all by any manner of means, nor will it relieve the patient of more or less constant medical supervision. It is simply a good plan to try in some cases, and I might add in the especially bad ones.

In closing, let me plead with you as clinicians to pay attention to the diabetic. There is every reason why you should take up the matter. In the past, the plans of treatment in vogue probably did as much harm as good and naturally became discredited. The family practitioner is well equipped for the work. His only possible objection to it is that it is time consuming. As medicine is now practised, and as medical science is advancing, all medical work takes time and labor. I am sure that the public will appreciate your efforts. If you do not undertake the matter, your patients will surely drift to others and especially to the younger men who are now being taught modern methods in our colleges and hospitals. At the present time there are no less than six diabetics in my wards at Hahnemann Hospital, and the medical section at work numbers just five senior students. Each of these men has the opportunity of observing the progress of each and all of the cases. It is needless for me to remind you of the experience in this disease with which they will go to the public for patronage. The diabetic public is not as yet aware of the help awaiting them if they but make an intelligent battle for health; while now in the depths of fear of the future, they have recourse to patent diabetic foods and patent medicines, a practice which we can stop as soon as we demonstrate our ability.

THE BIOLOGICAL CO-RELATION OF THE LAW OF SIMILARS.*

BY

RALPH R. MELLON, M.SC., M.D., ANN ARBOR, MICH.

My sole intention in pointing out some biological co-relations of the Law of Similars is a two fold one: First to show that we are not wrong in defending this principle until such time as it meets adequate recognition, and second that we are wrong when we neglect to develop those branches of knowledge which are almost conditional to its most perfect application.

If this principle is a broad one, as we believe it to be, it

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must have a far reaching correspondence with many other laws in our Universe. This is so fundamental that it requires no elaboration. It is perfectly logical then, that because of its ramifications we cannot isolate it, and he who would make the attempt, only becomes ridiculous.

We believe it to be the safest and best therapeutic principle in existence. Even so, we have seen it fail in enough instances to wish many times that we had a better guide. I do not intend to discuss the many factors which might enter into an answer to the query "Why do prescriptions so often fall short of the mark?" I merely want to impress on you my first contention, viz., that we hit the mark often enough, to know that we have something which is capable of infinitely more development. I do not wish at this point to enter into a polemic with the man who has never lost a case, or who has cured 99 per cent of his curable cases.

It is practically certain that Dalton as a result of his study of Isaac Newton's works, conceived the atomic theory of chemistry in his own mind without a shred of experimental evidence. He then proceeded by deduction, made surprisingly few experiments, found that they corresponded to his preconceived ideas, and one of the most beautiful and useful classification systems ever evolved by the mind of man was fairly launched.

Those of you who are at all familiar with relatively recent developments of chemistry, know that Vant Hoff's generalization regarding solutions is the greatest ever made in this field. This discovery of regularities came likewise as a result of very little experimental evidence, although subsequent work has corroborated this observer's work. Surely Hahnemann as a scientist does not suffer by comparison with these men, when one considers that he worked for fifteen years to validate his hypothesis before publishing anything.

Just what are some of the co-relations of the Law of Similars or its application? I will mention first: the theory of electrolytic dissociation. This theory states that certain substances in dilute solutions are split up or dissociated with a result that from a physical and chemical standpoint the solution is much more active. The further a dilution is increased, the more active chemically it becomes, until a maximum is reached; *i. e.*, until the substance is completely dissociated.

The chief difference between a dissociated and non-dissociat-

ed atom is the charge of electricity carried by the former. For example, an atom of sodium carrying a unit of electricity is something wholly different from the metal itself. The addition of this electricity changes its properties fundamentally, and it is justifiable to consider the sodium ions as an allotropic modification of the element in the same way that graphite, charcoal and diamond are all allotropic modifications of the element carbon.

It is superfluous in a gathering of this kind to point out the relation of this proposition to homœopathic therapeutics. In justice to the theory, it should be mentioned that not all chemical compounds are capable of dissociation and likewise we know that not all remedies can be successfully diluted for therapeutic purposes.

Second: The subject of colloidal chemistry is so interesting that I am constrained to draw a parallel between the action of colloids and homœopathic dilutions from a somewhat different standpoint than the above.

It is of course well known that certain metals and other substances that are insoluble in water can be suspended in such finely divided condition that the particles do not fall to the bottom of the liquid. An element thus finely divided is said to be in the colloidal condition. These particles are ultramicroscopic, but can be observed as shining diffraction discs, in vigorous brownian movement by the ultramicroscope of Siedentopf.

If we now consider in what respect the particles, say, in a colloidal solution of platinum prepared by Bredig's method of an arc between platinum electrodes under water differ from an equal amount of the metal in the form of sheet or wire immersed in water, it is plain that it consists in the relative enormous development of surface in the former case. According to Siedentopf and Zsigmondy the particles in certain colloidal solutions of gold have a radius of one millionth of a c.c.; a sphere of gold with a radius of one m.m. if divided into particles of those dimensions would have a surface of some 100 square meters.

Enzymes are colloids, and although they have not as yet been demonstrated to have definite chemical constitution, they have a very strong similarity in their action to bodies in inorganic chemistry known as catalyzers, and these do have a definite constitution.

The two cardinal characteristics of both enzymes and most catalyzers are: First, their marvelous acceleration of a chemical reaction, and second, the fact that at the end of that reaction, they remain unchanged. We understand in some cases the cause of these accelerations by minute quantities of a known chemical. The action of electrolytes on colloids (enzymes) is interesting. Ptyalin action is almost nil, in the absence of Na Cl. And Bordet has shown that agglutination does not proceed in the absence of this salt. Pepsin is inactive without hydrioxion. Amylase of the liver is completely inert without the presence of the neutral salts.

Third: But in the science of immunity one can find constant illustrations of the Law of Similars. Vaccines and serums can surely be considered as good homœopathy. The gulf between true therapeutics on the one hand, and diagnosis and pathology on the other, has been bridged over by the science of immunity. This bridge may not be visible to every one, but surely, even the casual observer can make out a span or so in the uncertain light projected by medical evolution. I might say that the science of immunity is the meeting ground for pathology and therapeutics. Its development must demonstrate the futility of attempting to use the microscopical tissue lesion as a guide to prescription, but it will also show us why attempts at prescribing for some things is also futile.

My thesis is: Pathology has been inimical to homœopathic therapeutics because the former contended that its findings could be used as a guide in prescription. Immunity, although a development of pathology, goes behind the microscopical lesion, and its province, from a practical standpoint, is in no way connected with visible cellular pathology. In this respect it touches very closely on the sphere of action of the Law of Similars.

The process of immunity does not produce tissue damage, and the vast majority of all immunity reactions do not produce changes in the organs recognizable with the microscope. Concrete examples of this contention are on the increase. The most classical, of course, is the evolution of tuberculin therapy. It is so well known that I hesitate to bore you by reference to it. You are all familiar with the damage it did when given in the hope of mechanically evacuating the lesion as one might use a cathartic. This was Koch's idea, and was based on the areas of coagulation necrosis produced by injection of the

tubercular products. And it is the commonest of knowledge that the therapy of today precludes any reaction by ordinary methods. The dose used is entirely subphysiological in the commonly accepted sense of that term.

And of equal importance is the introduction of the principle of sensitization, in the sense of Bordet and Ehrlich, into typhoid therapy. The live organism is treated with an immune serum, which is later washed off, and the organism so sensitized is injected without further treatment. The antigen has united with its antibody in the immune serum, and the neutralization of its toxic portion prevents the local and constitutional reaction which has been a prominent and distasteful feature of the inoculations. The degree of immunity produced is much greater both experimentally and practically, than by the other method. Gay goes a step farther, and extracts the non-immune portion with absolute alcohol leaving only the immune part, which he claims produces even a better grade of protective power.

As the science develops, these instances will multiply. It has occurred many times to me in my experience with vaccines that the immunity so desired was produced in spite of the reaction, rather than because of it, and as methods of preparing vaccines were perfected, we must undoubtedly eradicate the negative proposition of Wright. In vaccine therapy the negative phase is identical with our dose of a remedy which causes an aggravation of the symptoms. And I have the temerity to believe that in the future, developments will show an absence of reaction of any kind after the administration of vaccines. Such dosage will be very much like what we now use, and whether the newer methods will be more effective can only be answered by the future.

The Law of Similars is a broad biological generalization, application of which has been successfully made for more than 150 years. Many researches from modern science corroborate the validity of this idea, rather than disprove it. This is perfectly evident to anyone who has given the matter any thought at all. Because the Law of Similars does not hold with the mathematical accuracy that is expected by some, is no reason for loss of faith in regard to it. Many of the laws in the supposedly accurate sciences are by no means applicable under all conditions. Permit me to refer briefly to the gas laws, viz., those of Boyle and Gay Lussac. The former states that

the volume of a gas varies inversely as the pressure when the temperature is constant. Formulated, $p v$ equals $K.T.$, when p is the pressure and v is the volume. K is a constant, and T is the absolute temperature. Concretely, when one doubles the pressure, he halves the volume. This sounds as concise as 2 times 2 equals 4. Exactly 4 and not a fraction above or under 4. A closer investigation of the facts in the case show that the variations from this generalization are considerable, for reasons which are quite obvious. A little reflection will enable one to see that a gas is much more compressible when near its point of condensation, and not compressible enough when under high pressure.

This proposition can readily be proven by subjecting gases to varying pressure. Instead of the volume into the pressure being a constant, the curve when charted shows nothing like that. So, although from a practical standpoint, the gas laws as formulated did apply in most cases, yet in many, they were inaccurate. A correction in them has been introduced by Van der Waal's which has made them much more accurate under both low and high pressure, but from a strictly mathematical viewpoint, they are not infallible yet, and probably never will be.

So the Law of Similars or any other biological law will only be a broad generalization, and infinitely more so than the cited parallel, for the very simple reason that we are dealing with a large number of factors, only a few of which we can apprehend. One may gain some appreciation of this fact by considering a single biological reaction, the Wassermann or most any serum reaction. Application of scientific methods for the quantitative estimation of antibodies approaches mathematical accuracy. In the minds of some, the results are nearly absolute, but such convictions are usually reached by the uninitiated. No serum reaction can be accurate only in a certain per cent of cases, and in many instances must only be regarded as symptoms which should be incorporated in the entire complex before we are able to arrive at correct notions.

Guinea pig serum which contains the activating something which makes possible the well known phenomenon of hemolysis in the Wassermann reaction, can be entirely inactivated by shaking it vigorously. This has been found to be due to the old, old physical phenomenon of surface tension, and the addition of anything which lowers this tension, prevents inactiva-

tion. This merely illustrates that in such a well known test, we are dealing with many factors the significance of which we are just beginning to realize.

Again this reaction, like all others when first discovered, was supposed to be specific. We know now that it is far from being so. The Abderhalden test for pregnancy supposed by him to be specific will eventually be shown not to be so.

But even though the Law of Similars has served us so well, it does not follow for a minute that its applications cannot be amplified and improved. Conservative vaccine and serum therapy are scientific developments of the Law of Similars, and in this new science, we are approaching nearer ultimate causes in a biological way than we have ever gotten before.

Some work has been done in bridging over the gulf existent between the antigenic powers of inorganic and organic chemical compounds and those of bacteria. Only a start has been made in this direction. But from the instances cited where homœopathy touches on so much that is being done in science today, it seems more than ever imperative that our colleges and our hospitals scattered over the country should have pathological departments where the material in those institutions is utilized for studying the science of immunity and thus improving the homœopathy that we have today. If homœopathy is so intimately connected with immunity and the processes of physical chemistry, and the sciences which are fundamental to it, a greater responsibility devolves upon us than we seem to have realized. If we are to progress in the applications of our law, why is it necessary to wait until the opposition works out methods that we will later be compelled to appropriate?

At certain times, I am privileged to visit large and prosperous homœopathic hospitals in our cities. It is with a great deal of regret that so far I have been unable to find well organized laboratory departments. Cities like Rochester and Buffalo, N. Y., and many others where homœopathy is strong should have laboratory departments to their hospitals with enthusiastic, ambitious men grappling with some of the thousands of problems that confront us today. Such departments should have a pathologist, a bacteriologist, and a biological chemist all co-operating in the routine work of that hospital and thus serving the patient and the clinician. They should also be doing the larger work, viz., the utilization of the cases

for the study of medical problems and for a thorough testing out of our homœopathic drugs with the many methods which are at their command. To be concrete: What an opportunity for the investigation and study of that bugbear of medicine, idiosyncrasy. Drug allergies, food allergies, pollen allergies, as we are prone to style them now. We are no longer so totally ignorant regarding idiosyncrasy as we once were. An extremely interesting case of food allergy is reported by Schloss in the *Medical Record* of 1912. His experiments were reported on a boy patient seven years of age. When this patient was ten days old he was given some egg white for diarrhœa, with no ill effect. The second time that the child ingested egg, months later, he developed urticarial lesions around the mouth, swelling of the buccal mucosa and vomiting. The child became comatose, and fear for his recovery was entertained. Since that time the slightest amount of ingested egg sufficed to produce urticaria wheals around the mouth, with swelling of the buccal mucosa, and occasional vomiting. Here then, was a case of marked idiosyncrasy to egg following an initial sensitization of the organism. In addition to his hypersusceptibility to egg, it was noted that this child was also hypersensitive to almonds and oat meal. Schloss' experiments were chemical, biological and therapeutic. He succeeded in demonstrating that it was the ovo-mucoid in the egg white to which the child was most sensitive, and the proteose of the almonds and oatmeal.

With the blood serum of the patient, he was able to produce anaphylactic phenomena in guinea pigs by injections later of solutions of ovo-mucoid. Of great interest, moreover, was the fact that with dilute solutions of ovo-mucoid, almond and oatmeal proteose he was able to provoke urticarial lesions in the patient by abrading the skin by means of a Von Pirquet borer. These reactions Schloss showed to be entirely specific. Of still greater importance, certainly from the standpoint of the patient, was the fact that by administering very small and gradually increasing doses of ovo-mucoid in capsule form, Schloss was able to immunize the patient absolutely, so that at the present time, eggs in any form are tolerated. It is of peculiar interest to note that this treatment also established complete immunity to oatmeal and a lessened susceptibility to almonds.

Such work as this requires men who have devoted much time

and study to their subject. The work is intimately related to the best homœopathy. Why should our opponents have investigating staffs in their hospitals, large endowments, etc., while we do almost nothing of an advancing nature in the work so akin to our guiding star? I consider these questions as vital ones, ones that must be dealt with, and the obstacles they represent overcome, if our school will continue to be a factor in medicine in this country. We have talked a lot in the past, and are yet talking about drug proving. I should like to restate my convictions which I have so often expounded. Vague ramblings and dreams, and ruminations about drug proving never accomplished anything, and although this aspect of my paper has been placed last, it must be the Alpha practically, or all the papers we read and all the talk we do and all the beating of the air about the Law of Similars will scarcely repay us for the energy we spend.

“A man, not of the common clay,
But who had dreamed his life away,
Conscious of kinship with the great
Knocked fearlessly at Heaven’s gate;
Admitted there, he straight way caught,
The circle of those minds whose thought
Had been his own. Not recognized
By those whose company he prized,
Disconsolate, he went away,
And then he heard an angel say,
‘Here, as on earth, you find yourself alone,
Because by works, not thoughts, the man is known.’”

ANALYSIS OF DRINKING WATER.

BY

WILLIAM A. PEARSON, PH.C., PH.D., M.D.

Professor of Chemistry, Hahnemann Medical College of Philadelphia.

(Read before the Southern Homœopathic Medical Association at Cincinnati, November 9, 1915).

PHYSICIANS are frequently consulted concerning the danger of drinking water from various sources. In cases where the medicinal action of the water is only concerned and the chemical composition of the water is known, the physician usually

gives accurate advice. Unfortunately this is not always the case when an opinion is expressed concerning the actual danger of drinking water from a water supply, even when a sanitary analysis of the water is available.

In the first place, a sanitary analysis of water is intended primarily to determine the extent of contamination, the purity of the water and the danger of using it for drinking purposes. It is perfectly evident that even an accurate determination of the salts present in the water does not give this information. It is now established beyond question that certain "zymotic" diseases may be transmitted through the water supply. Typhoid fever, Asiatic cholera and dysentery are certainly frequently propagated by this means. Even if the etiologic cause of the disease is well known, it is seldom that the micro-organism responsible for the disease can be isolated from the water because of the presence of myriads of other micro-organisms. In fact bacillus typhosus has only been isolated a few times by the most competent bacteriologists from water known to be contaminated with these micro-organisms.

When the courts were discussing the water supply of St. Louis and the possible contamination by the sewage from Chicago, great difficulty was encountered in identifying a peculiar type of bacillus prodigiosus, although actually barrels of the culture of this micro-organism had purposely been placed in the sewers at Chicago. It is evident therefore that a bacteriological examination of water will not give the desired information.

Since we cannot determine the dangerous character of a water by estimating the chemical salts or by a bacteriologic examination, evidences of contamination are indirectly determined by estimating accurately the products of protein decomposition. Certain it is we can have no contamination if the water is perfectly free from proteins and the products of protein decomposition because the micro-organisms are themselves protein in character and require similar substances for growth. A common error in interpreting a sanitary analysis of water is due to a failure to understand that the small quantities of substances reported are not in themselves responsible for the dangerous character of the water. No one would consider the small amount of protein in a tube of a bouillon culture of bacillus typhosus dangerous to human life, yet if we knew that the amount of protein present was in proportion to the number of micro-organisms, we would place the true significance on this determination.

DECOMPOSITION PRODUCTS OF PROTEINS.

Most of the complex protein molecule is a union of various amido acids. This is possible because amido acids are both acidic and basic, due to the simultaneous presence in each one of an acid group (carboxyl— COOH) and a basic group (amidogen— NH^2). As proteins decompose, the nitrogen is combined in less and less complex form. First, as "albuminoid ammonia," then in succession, "free ammonia," nitrites and nitrates. It is perfectly evident that natural water cannot be obtained for drinking purposes absolutely free from organic contamination, hence certain standards for permissible amounts of these products of decomposition have been proposed. The amount of nitrogen combined in each form is accurately determined and the results compared with permissible standards.

These determinations are quite tedious and complicated and no details of the standard analytic methods will be given as these may be readily found by consulting the book published by The American Health Association, entitled, "Standard Methods of Water Analysis."

Besides the determination of the various nitrogen compounds certain other determinations are made which have a relation to contamination. A list of the important determinations that should be made for a sanitary analysis follows, together with permissible standards.

Total solids—not over 500 parts per million.

Organic matter (determined by ignition)—not over half the total solids.

Oxygen required to oxidize the organic matter—not over 0.3 part per million.

Nitrogen as "albuminoid ammonia"—not over 0.2 part per million.

Nitrogen as "free ammonia"—not over 0.12 part per million.

Nitrogen as "nitrites"—not over 0.02 part per million.

Nitrites are usually evidence of existing putrefactive changes and nitrates the final products.

Nitrogen as "nitrates"—not over 5 parts per million.

Chlorine (cl.)—not over 10 parts per million.

Phosphates (P_{205})—not over 0.6 part per million.

While the purification of drinking water is closely related to this subject it will not be considered neither will hardness, gas content nor other related phases.

SEMINAL COLLICULITIS.

BY

HARRY HYZER, M.D., PHILADELPHIA.

Junior Neurologist to Hospitals of the Women's Homeopathic Association.

(Read before the Society of Surgery, Gynecology and Obstetrics, Hahnemann Medical College, Philadelphia, November 3, 1915).

INFLAMMATORY conditions of the verumontanum (variously named) are fraught with such a symptom complex, that a correct diagnosis often presents a difficult problem.

During my association with Dr. Ashcraft for the past four years, it has been my pleasure to observe quite a few cases coming under this category; with this end in view, I wish to present the results of such observations for your consideration this evening.

Unfortunately, the literature on the subject has been quite sparse. This, I believe, has been due in a measure, to the misconception of the earlier anatomists whose descriptions of the verumontanum were rather hazy and inaccurate. The fallacy of these anatomical descriptions has been rendered evident by the advent of the urethroscope, and the observations of Rytina who has demonstrated the actual gross and histologic anatomy of the gland. To quote: "The verumontanum from an embryological standpoint, is developed from the united lower ends of the atrophied Mullerian ducts which explains the origin of its glandular tissue and its homologous relationship with the uterus and vagina. Further, he has differentiated the organ into a central glandular and a peripheral stroma portion, the glandular portion consisting of groups of glands, showing numerous intra-acinous proliferations and these infoldings are composed of several layers of varying types of epithelial cells. The organ at its base is encapsulated with dense bands of fibrous and elastic tissue." Of its pathology, the colliculus may show simple congestion of its mucosa, especially posterior. It may be so distended as to fill up entirely the lumen of the urethra, or as in many cases, well defined, showing multiple cysts and minute ulcerated areas with pus exuding from their openings. In the acute cases the entire prostatic mucosa is in a state of marked hyperemia; while by contrast in the chronic cases, the surrounding tissue is normal in appearance, while the colliculus stands out prominently, hypertrophied, firm and infiltrated.

The etiology of colliculitis may be divided into two types:

the infective and non-infective. In the infective type it has been our observation that the organisms invading the veru and its surrounding tissue of the Neisser variety have their origin in the prostate and seminal vesicles and in other cases the colliculitis was caused by a pyelitis of colon bacillus origin; so that as long as there is vesical infection or infections higher up, treatment directed to the caput per se would be only partially and temporarily successful.

The infective type of colliculitis by far the most interesting as well as the most difficult of treatment owing to the mental condition and chronicity, offers many etiological factors. Most important among which are to be found:

1. Coitus interruptus.
2. Masturbation.
3. Ungratified sexual desire.
4. New growths { hypertrophied stroma.
malformations.
projections.

A history presenting one or more of these factors is sufficient to call for urethroscopy when the diagnosis is apparent.

The symptomatology of colliculitis is quite interesting. Three well-defined avenues (so to speak) lend their aid in the production of symptoms, i. e., the urinary, sexual and the so-called referred symptoms. While in most instances the symptoms are usually confined to one of these avenues, however, it is not uncommon to find the patient complaining of all three.

Of the urinary symptoms: By far the most important is urinary frequency by day and by night, ranging in time from fifteen minutes to two-hour intervals. This is followed by another well defined symptom, that of burning at the termination of urination; in some instances, referred to the head of the penis, others to the perineum. This lasts a few minutes, when the patient has relief in the interval. The urine in these cases is clear, in many instances with mucous floating on the surface. Of course in the *infective* type, it may be clear or cloudy, containing pus, shreds and organisms.

Hæmaturia usually accompanies the acute colliculitis. Likewise in the chronic type where the caput is markedly swollen and congested and kept in this condition by the constant and frequent calls to urinate, hæmaturia is not only demonstrated macroscopically but microscopically as well.

Nocturnal enuresis is sometimes a factor in colliculitis. A case in point was that of a young man eighteen years of age, who came into our clinic at the Women's Hospital whose only complaint was that of nocturnal enuresis since early childhood. There was, however, a history of masturbation. Cystoscopically, the bladder was normal. Catheterized specimen from both kidneys negative. The Buerger cysto urethroscope, however, revealed a swollen, hard, firm caput, which filled almost the entire lumen of the urethra. Colliculectomy was suggested and accepted, with the result that four months later, the patient's mother reported he had not wet the bed since the operation.

The sexual element associated with colliculitis presents a picture which is usually common in not only the non-infective type, but the infective as well, with preference toward the former. Nocturnal emissions are frequent, painful ejaculations, especially referred to the perineum and rectum always followed by marked burning in the prostatic urethra for some hours, and as the patient will often state, "Sexual intercourse makes me worse." This leads to the unfortunate and disturbing mental element, on the part of the patient, that of sexual impotency, which varies from slight impairment to complete loss of function; and, it is just this neurotic element entering into these cases that makes them difficult of treatment.

The so-called referred symptoms are quite important, and in many instances, furnish data which is invaluable. Pain in the lumbar region is quite common, pain that is sharp, severe and occurring at intermittent intervals. Supra pubic distress of a dull, heavy aching character; a distress often referred to the testicle and rectum. Of course, with the above symptoms, one may be led to the erroneous diagnosis of myalgia or neuralgia; but, it has been our experience to go over these cases endoscopically and in most cases the verumontanum is at fault.

Diagnosis. The diagnosis of colliculitis is made upon the clinical history and verified by the urethroscopic findings. It should be borne in mind, however, to differentiate inflammations of the caput from inflammatory conditions at the neck of the bladder, the presence of a well defined prostatic bar, and the entire prostatic urethra. So, in making a urethroscopic examination, not only the veru itself but the entire prostatic urethra, neck of the bladder and trigone, should be carefully examined. Undue sensitiveness and bleeding to instrumentation should arouse suspicion of colliculitis. Where it is necessary to ex-

clude bladder and kidney lesions, it has been our custom to defer urethroscopy until all evidence of cystoscopic examination has worn off. Otherwise, erroneous impressions of the veru per se may be obtained.

Treatment of the verumontanum is entirely dependent upon the etiological factors that enter into the case. In the infective type where the focus is in the prostate and vesicles it is useless to apply topical applications to the caput, even if the urethroscopic picture shows evidence of inflammation. This particular class of cases calls for treatment of the vesicles and prostate by the usual methods of prostatic massage and posterior irrigations, dilatations and failing in these, injections of the vesicles through an opening in the vas on either side (vasostomy). However, in the non-infective type of colliculitis one must exercise due care and precaution owing to the predominant neurotic element present, especially where functional impotency is manifest. In this class of cases, the parts are usually cold and lax to the touch. The general condition of the patient is below par, with headaches and digestive disturbances plus the all-pervading fear of complete loss of sexual virility.

It has been our custom after a thorough examination, to impress upon these patients that they are not hopelessly lost, and ultimate cure is absolutely possible. Insisting upon nutritious diet, exercise, and proper hygiene.

Where there is a tight sphincter ani, divulsion of the same acts wonders. Also, dilatation of the posterior urethra with Kollmann dilator and topical applications to the caput through the urethroscope with varying strengths of silver nitrate 40 to 60 grs., iodine 3 per cent. and copper sulphate 2 per cent.

Unfortunately these cases are usually of long standing have had the usual treatment with practically little or no relief and the urethroscopic picture reveals a hard, firm, fibrotic caput which through repeated cauterization has left a hard, cherry-stone like elevation which defies all effort at alleviation. It is in this particular class of cases that the operation of colliculectomy has been resorted to with marvelous and very gratifying results.

To illustrate:

CASE 1.—Mr. W.; age 35 years; telegraph operator; married; mental state was really deplorable. Had been practicing coitus interruptus for five years. Venereal history negative. Consulted for sexual impotency. Urinary findings

negative. Urethroscopically, the caput was well outlined and markedly elevated, swollen, red and congested. Since this patient had been the rounds, so to speak, and informed us that topical applications had no effect, colliculectomy was deemed advisable, not only from the standpoint of the urethroscopic picture, but likewise the psychic effect upon this much distorted mind. To our intense surprise and satisfaction, after giving instruction as to his sexual relations, three months later, patient returned having gained weight and feeling perfectly normal in every respect.

Another case in brief:

Mr. B.; 30 years of age; single; salesman. Complaint, pain in perineum, back and rectum; seminal emissions two or three times a week. Marked frequency of urination. Neisser infection ten years ago; no complications. Cystoscopy, bladder normal. Catheterized specimen from both kidneys normal. Urethroscopy revealed well defined swollen firm caput. Applications of silver nitrate in varying strengths had little or no effect. Colliculectomy was resorted to with the result that two months later, patient reports complete absence of symptoms.

Another interesting case was that of Mr. O.; age 39; single; clerk. Shows all the evidence of the sexual neurasthenic. Loss of sexual power. Nightly emissions at frequent intervals. History of masturbation since early childhood. Venereal history negative. Urinary findings normal. Urethroscopy showed a large, swollen, spongy, bleeding veru, with marked patency of the ejaculatory orifices. Instrumentation seemed to increase the congestion and bleeding and the patient became very despondent. Operation was advised and the beneficial results obtained were far more gratifying than anticipated.

These few cases selected at random from a series of twenty-six, serve to illustrate the value of colliculectomy in selected cases. Of course, I do not wish it to be understood that we advise operation in all cases. On the contrary, many of the milder forms of colliculitis clear up nicely with topical applications of silver nitrate. However, in the chronic type, where the caput shows marked elevation, is firm, hard and indurated, and the usual methods of treatment fail, then colliculectomy is the only proper method of procedure, if ultimate success is to be hoped for in the treatment of these conditions.

In conclusion, I am indebted to Dr. Ashcraft for the privilege of his case records, and to his very able suggestions in the preparation of this paper.

ON CERTAIN MECHANICAL CONCEPTIONS OF DISEASE.

BY

BENJAMIN C. WOODBURY, M.D., PORTSMOUTH, N. H.

THERE is at the present time wide spread interest in many forms of mechano-therapy, and likewise a decided materialistic trend in medicine. It was one of the labors of Hahnemann to cleanse the Augean stables of Medicine, and emancipate the healing art from a multitude of unwholesome practices, such as bloodletting, blistering, etc., yet in spite of his Herculean endeavors, there is still much that is left undone. Encumbered as medical practice has been through all these centuries, small wonder that its treatment should be materialistic.

There are certain phases of physical therapeutics to which the popular mind is at once attracted, which can be readily dismissed with the assurance that they are in perfect harmony with natural law, hence should admit of no discussion. By this we would refer to hydrotherapy rightly applied, natural dietetics and hygiene. In the closing sections of his *Organon*, Hahnemann includes a discussion of animal magnetism or what we may now term physical dynamics, which undoubtedly has its own well defined sphere, and it is interesting, in connection with psychotherapy, that the mesmeric movements were always to be "imparted to the patient by the touch of a well disposed person exercising the full strength of his will." Perhaps these careful directions demand more than the secondary importance generally conceded to them. Hahnemann was a skilled physician, yet he was none the less an advocate of preventive measures.

In the consideration of the various schools of mechano-therapy, or physio-therapy, osteopathy must be given first attention. While having experienced rapid growth and achieved astonishing popularity, this method is not without its limitations. Undoubtedly one of the chief criticisms of this system as at present practised is its noticeable tendency to revert to the use of crude drugs and adjuvants. Finding itself unable to cope with a variety of acute disorders, it seeks aid in the use of local treatment, enemata and douches; in fact any

measures which can consistently be recommended to the patient without direct disobedience to the law which prohibits the prescribing of medicines.

Osteopathy as it stands today is a mixture of scientific physical manipulations, and the use of many of the crude, suppressive measures of the regular school. Instead of progressing into osteopathy via homœopathy, its practitioners have entered upon it, by way of the slow and circuitous route of Old Medicine. It is a significant fact that Old Medicine has never yet nor will it ever until it loses its own identity, recognize or investigate homœopathy, or apply it in practice. When such a transformation does take place, it will no longer be allopathy. So it is with many non-medical systems. They are advocates of drugless therapy just so long as their mental or physical measures are effectual. When, however, these fail them, there is but one resort—allopathy.

If osteopathy and other similar systems had been an evolution from homœopathy, rather than an involution of allopathy, it would be worthy of more support and stauncher confidence.

Similarly electricity, if it had been utilized after the method of Hahnemann, might have gained a much more stable place in therapeutics than it now holds.

In the general consideration of physical measures in the treatment of disease, the Hahnemannic method has many claims to priority. We are all more or less familiar with Hahnemann's physical similars: snow to frost bites; hot alcohol to burns, or hot oils such as turpentine, *e. g.*, substances capable of exciting similar burning sensations (not to mention the recent recommendation of gasoline in the treatment of burns and ivy poisoning). We may well add the radiated heat advised by Hering for the cure of snake bite; not forgetting as advised by Hahnemann the relief that is obtained in burns by holding the part *near*, but not *on* the fire. We might also add the rubbing and massage of bruises, which represents the application of a similar measure, applied in a lesser degree. Thus a sharp blow on the shin bone is best treated by vigorous rubbing of the part, until gradually the normal circulation and sensation are restored. So applicable is this treatment, that it is not unhomœopathic to a variety of similar conditions. Thus Hahnemann remarks in his introduction to the *Organon*: "So to give another example from physical action, the injury resulting from a blow on the forehead with a hard substance

(a painful lump) is soon diminished in pain and swelling by pressing on the spot for a considerable time with the ball of the thumb, strongly at first, and then gradually less forcibly, homœopathically, but not by an equally hard blow with an equally hard body, which would increase the evil isopathically."

So universal is this principle of applying friction or pressure, that whole systems have been based upon it, as Swedish massage, the movement cure, spondylotherapy, osteopathy, chiropractic, etc. Unequal pressure brought to bear upon nerve trunks along their pathways and distribution is but another form of traumatic disturbance applied continuously instead of singly, as in the case of a single sharp or sudden blow. No physician doubts the utility of proper mechanical (anatomical) adjustment of purely mechanical lesions. Nor is he uninformed clinically of the wonderfully curative effects of the properly indicated vulnerary. In fact, homœopathy has a whole repertory of anti-traumatics, covering in a very exhaustive manner lesions of bone, muscle, tendon, nerve and brain tissue, all of which are specifically worked out, in accordance with provings and clinical verifications. This does not in any way invalidate the teachings of osteopathy that many mechanical maladjustments are the productive factors in pain, debility, anemia and malnutrition. The osteopath not knowing the extent or sources of the homœopathic estimate, sees in a given case but an osteopathic lesion, whereas it may be a surgical lesion, *e. g.*, one so situated that relief may only be had through surgical measures; or it may be a homœopathic lesion, *i. e.*, one which has its origin in causes which are purely dynamic as certain rheumatic affections, low states of fever, meningeal irritation, purpuric or septicemic states which are productive of symptoms bearing a close analogy to the effects of trauma.

Again, it may be a psychopathic lesion, *i. e.*, one in which no dynamic disturbances are evident. Such a case is no less a form of traumatism and may demand a purely psychotherapeutic regime for its cure, although Hahnemann assures us that most so-called diseases of the mind are in reality bodily diseases. On the other hand some psychical cases do not manifest any well-defined physical symptoms, and such were referred to by him as one-sided cases, which are generally the results of drug poisons or suppression. Both of these conditions are well covered by comprehensive homœopathy.

The appeal that mechano-therapy has made to the layman

and to the non-medically trained mind can but give us pause, that we shall render unto it certain justice that is its due. Any movement which has aided so much in the emancipation of humanity from the abuse of drugs, must carry with it an element of truth. When we consider that there should be some more definite understanding regarding what constitutes an "osteopathic lesion," we are in strict accord with the author of a standard text-book of osteopathy (*The Practice of Osteopathy*, by Chas. H. Murray), who states that:

"Before we can say that a deviation of such a character constitutes a lesion, it ought to produce some pathological condition, or ill feeling of some kind." "It is not every vertebra that is out of line laterally, or deviates anteriorly or posteriorly, that may be said to be out of position in such a manner as to constitute a lesion."

In describing what really constitutes a spinal lesion, he continues:

"There should be some change in color and some temperature near the abnormality. There should be some contraction in the muscles and ligaments. There should be some inflammation, or a congestion bordering on inflammation, near the seat of lesion. There will be pain in nearly all recent lesions. Pain will be present on pressure. In some conditions the muscles in close proximity will be slightly swollen and have a rigid feeling when worked over with the hand. It will be always safe and beneficial to manipulate the spine, ribs, ligaments, muscles, and other tissues, but do not attempt to correct a misplaced bone until it is known to be out of place in such a manner as to cause pressure or is forming an obstruction that is causing some illness. Never manipulate a tubercular joint or spine. Do not cause pressure on lymphatic glands."

"Diseases and disturbances of the circulation are not, as is generally believed by osteopaths, caused by arterial or venous obstruction occasioned by misplaced vertebrae. Vertebral displacements and an obstructed circulation have been the two great points which osteopaths have kept before the public. They have believed this and acting on this belief, in attempting to adjust vertebrae have done much harm to suffering humanity." . . . "The real lesion, or spinal abnormality, when it exists is in a tightened vertebral joint or series of such joints."

Here then is a definite lesion such as any osteopath of experi-

ence should be able to recognize and administer proper and adequate treatment. Such treatment may, however, need to be directed not to the spine at all, but to some remote part, such as the feet, the intestines, the liver or other abdominal or pelvic organ.

As at present practised the name osteopathy is more or less a misnomer for its lesions are referable, not only to the bones as its name suggests, but to the nerves, tendons and soft parts. There should be some more adequate name for the science of mechanical adjustment. Mechano-therapy covers it in a measure, yet this term does not in itself specify just what method of adjustment is signified. Perhaps the future will see all forms of such manipulation under a single more comprehensive name. Spondylotherapy, chiropractic and allied terms are used to indicate special methods of adjustment referable in a large measure to the spine. From its derivation spondylotherapy, which consists in the percussion or tapping of the vertebral spines, might well be called "spinal therapy." Chiropractic methods utilize the so-called "thrust," which aims at the adjustment of the spine or other part by manipulation. Osteopathy, less frequently than in former years, bases its therapy upon the general supposition that bodily diseases are the direct or indirect result of misplacements of the bony structures, producing pressure upon nerves, tendons, and muscular structures, with consequent vascular hyperemia and engorgement.

Etymologically, however, it is interesting to see how far any single term is indicative of the scope of these various methods. Chiropractic which consists in manual adjustment bears the closest relation to the literal definition of surgery, which may be translated "hand-work." Surgery is defined as:

"The branch of the healing art that relates to external injuries, deformities, and other morbid conditions to be remedied directly by manual operations or instrumental appliances."

A more scientific (modern) definition of surgery (chirurgia) is:

"The branch of medicine dealing with diseases requiring operative procedure."

In its broadest meaning, then, surgery or the art of manual operative procedure covers the whole field. May we not see in the near future all such measures recognized by the surgeon and given their proper place in the treatment of the sick? We

believe that here and only here is the proper place for such corrective measures. In a general way orthopedic surgery, which deals with the correction of deformities, should embrace the various forms of mechanical adjustment now so partially and imperfectly applied under the various schools of mechanotherapy.

Whatever virtue may at present be possessed by them, no single one can lay claim to covering so wide a field as that embraced in surgery.

"It follows," continues the writer we have quoted, "that the best treatment will be directed to loosen the tightened joint or joints and so manipulate the surrounding tissues that the circulation will be restored. Chiropractors have been doing their work, using a theory that is entirely wrong, but in practice they have only loosened such joints, and in that way have secured good results. They would secure better results if they paid some attention to surrounding tissues. . . . Spinal vertebrae, of course, are found out of position, but this is seldom a cause of disease, unless such malposition is the result of severe accident. . . . The reader must not think from the above that I undervalue the good results to be obtained in osteopathy, or mechanical treatment, only to obtain better results than have been secured in the past we must perform our work with a view to loosen tight joints, relax muscles, ligaments and fascia and not attempt to move bones that are not causing pathological conditions."

Would it not be better for us, instead of concerning ourselves with structures that have become secondarily involved, except of course in the true osteopathic lesion where the author has stated there is a definite skeletal displacement, to go a step farther and seek the deeper, primary disorders of which twisted vertebrae, splinted muscles, arterial deposits, etc., are the secondary or indirect results? It is undoubtedly true that such primary causative factors are seldom circumscribed within the simple term mechanical lesion, but are more often dynamic and have to do with the organism as a whole. If there are stiffened muscles, contracted tendons and osseous deposits, it is often the result of bad living, improper hygiene, suppression of acute disturbances of the organism, psychical repressions, and inhibitions of the emotions and will. Here is a field which is as yet little explored by the devotee of mechanotherapy. Hence our investigation of this subject must not fail to emphasize

the importance of a return to the study of dietetics, which can be established upon a secure and scientific basis by carefully conducted food experiment, which it is hoped will soon be embraced in the curriculum of every medical school. Such study, coupled with the scientific method of pharmacological research instituted by Hahnemann, will relegate mechanotherapy to the realm of purely mechanical adjustment, which may in the near future lie well within the scope of scientific orthopedics. How faulty and unsafe is any method which treats a mechanical lesion without considering the organism as a structural unit. Thus orthopedic methods for the relief of flat foot have pronounced astonishing results, even in the cure of spinal deformity. Such results will become more striking when it shall have been demonstrated that many lesions of the female pelvis will be quickly alleviated when mankind or rather womankind has emancipated herself from the harmful conventionalities of the corset and high heeled shoe. Again, how multitudinous are the lesions which have their origin solely in deposits produced in osseous, nervous, and arterial tissues, through the injurious residues of devitalized and demineralized foods, the exhaustion and debility that arise in the blood and nervous systems through the false stimulation of irritating spices and condiments, and the depression that follows the excessive ingestion of fermentative and intoxicating substances.

In other words, when humanity will be content to live within natural, normal limits, then and only then will diseases *pari passu* disappear, and not be replaced as at the present time by apparently new and unheard of complaints. Even the followers of osteopathy are coming to recognize that general treatment is often of far greater service than mere local meddling, and this is in strict accord with the teaching of homœopathy. Thus the author quoted, continues:

"In nervous troubles and in many constitutional diseases osteopaths have discovered that they get better results when they give the general treatment. This helps the circulation and makes a tired patient feel like new; and the treatment, after all, when there are no special lesions to remove, is but little more than deep massage, in which nearly all the muscles of the body are manipulated."

In a more recent work, this author has sought to originate a simpler form of treatment under the general term "soma-

pathy," which in its simplest analysis is but the application of deep or subdural massage and hydrotherapy, applied at varying temperatures according to the actual pathological findings; *e. g.*, the application of cold in spinal and general anemia; the application of heat in spasmodic and neuralgic conditions wherever localized. What, finally, is this method but an extension of those very measures indicated by Hahnemann in his consideration of *physical homœopathy*, which is well within the domain or regional modalities and remedial dynamics.

Surely no one will deny that there are times when passive manipulations are not only necessary but beneficial. However, the true therapist sees in them but a roundabout method of accomplishing what nature herself, under the intelligent direction of the will should be able to accomplish for any except those temporarily incapable of self assistance. Hence it follows that, given a little time, the intellect of man will be able to direct our bodies along the lines of self adjustment through proper physical culture, and development, natural methods of eating, drinking and thinking. After all, such a movement will but usher in a new therapeutic order. Such a course could not but seem easy to the follower of vitalism; for the materialist it would be more difficult. The literature of today still deals in a most substantial manner with the mediaeval ideas of plethora, humors, and the *materies morbi* hence its mechanistic philosophy. The followers of Hahnemann recognize the vitalistic or dynamic origin of disease, and see in the localization and statics of disease simply a means for recognizing its deeper dynamics. By this we do not mean to say that disease is not often of purely mechanical or material origin; it is, often: but this occurs in the great majority of cases as a secondary localization.

Homœopathy is the system *par excellence* which recognizes this threefold origin of disease, namely, mental or moral, dynamic and physical. The physical manifestations of disease are to Hahnemann but finalities of dynamic or immaterial origin. Thus we may speak of the physical, the psychological and even of the metaphysical origins of disease. Let us not deny these great truths, but press eagerly forward in our endeavor to eradicate these morbid causes in their smallest and most remote beginnings.

Transactions of the Homoeopathic Medical Society of the State of Pennsylvania.

FIFTY-SECOND SESSION

INTESTINAL OBSTRUCTIONS---MALIGNANT AND MECHANICAL.

BY

G. W. HARTMAN, M.D., HARRISBURG.

VOLUMES have been written upon the subject of intestinal obstruction. Its importance is shown by the large number of articles presented and the merited discussion it receives in medical meetings. Who has not had intestinal cases that baffled his diagnostic acumen and resources of treatment? There is still much to learn about these subjects. I have nothing new to offer this society, but if I draw attention to some points by reviewing a few cases, and thereby emphasize and fix them, the purpose of this paper shall be accomplished. Some peculiar cases of intestinal obstruction came under my observation recently. This fact suggested the topic.

There are two main divisions of obstruction, acute and chronic. The acute type is a serious disease complex, which needs only to be seen to be feared. The chronic is shown by the effects engendered by influences and processes which more or less completely close the intestinal tract to the passage of gases or fæces. These effects do not always make the patient feel or appear seriously ill. I would distinguish between purely mechanical obstruction, mechano-pathological obstruction and symptomatic obstruction, in this consideration. Examples of the first are obstructed and strangulated herniæ, intussusception, volvulus, obstruction due to adhesions, intra-intestinal growths, foreign bodies, etc. Examples of the second are malignant and benign growths plus a foreign body. Examples of the third are found in the numerous and varied abdominal inflammatory conditions that develop along the digestive tract in and about the stomach, the liver and its ducts.

the pancreas, spleen and appendix, the uterus, tubes and ovaries, the kidneys, ureters and bladder.

An unusual case illustrative of mechanical obstruction was operated upon at our hospital by Dr. Bowman, of Harrisburg. The patient, a lady eighty years old, was sent in by Dr. Kilgore. She was a person of unusual ruggedness of health and physique. She reared a family and was spared to them until she had attained the age, four score noted. Her illness started as the result of a fall down stairs. At first it was thought that she was not seriously hurt. She reacted from the shock, but soon began to complain of pain in the abdomen. Her abdomen became distended and tender. Her pulse was rapid and thin, the respirations were shallow, the bowels were locked. A diagnosis of acute bowel obstruction was made, and the patient was prepared for operation. A low median incision, discovered that the parietal peritoneum was adherent to a mass of some kind. The depth of the incision was increased by careful dissection. A cavity containing a lot of cream colored matter of about the consistency of moderately soft butter, was opened into. This material to the amount of several pounds was evacuated. Adhesions were broken up around the enveloping sack which consisted of the degenerated uterus. A hysterectomy was done rapidly, and patient was returned to bed. An examination of the specimen removed showed that it contained more of the mushy material, and also a hard, bony mass of calcified material the size and somewhat the shape of the parietal bone. The shock of the fall, which evidently changed the vertical position of the calcareous deposit to a position crosswise in the pelvis, and thereby produced the obstruction of the bowel, and the shock of the operation were the factors which contributed to an unfavorable outcome.

A case referred to me by Dr. Bomberger is unique in the findings on the operating table. This patient was in apparent excellent health until it was noticed that she missed her normal daily evacuation of the bowel. She took a laxative without result. She did not feel badly, but referred her case to the physician. He gave evacuants also without results. An osteopath thought he could bring about activity of the bowel and did his worst without avail. A diagnosis of acute bowel obstruction was given, and she was brought in and operated on. At the junction of descending colon and sigmoid, we found a hard mass the diameter of a small sausage, and about $3\frac{1}{2}$

inches long. It felt like a tight intussusception. In attempting to draw it into the field, it fractured through the middle, liberating a round black mass which looked like a gall stone, but which, on closer examination, was found to be a large huckleberry, which had escaped mastication. The lumen of the colon was so completely reduced by the carcinoma of which the growth consisted, that the huckleberry acted as a ball valve and tied things up so completely that not even gas could get by. The growth was removed and the colon was repaired.

I thought these two cases might interest you, because of the peculiar and unusual kind of objects found as causative of the obstruction. However, it is more important to note how grave the pathological conditions were which existed in each case for a long time without producing any discomfort whatever. It is essential to investigate thoroughly every case of intestinal stasis you are called upon to treat, and whenever it seems likely that the bowel is mechanically obstructed, immediate operation is indicated.

The symptoms come earlier in obstruction of the small intestine than in the large, and less time is needed to produce severe lesions in the upper part of the intestinal canal.

In going into a consideration of the third class of cases, I will say that in those the bowel inactivity it is not really an obstruction, but a stasis or paralysis. Appendicitis is familiar to everyone, and you might not look for its consideration in a paper like this because of its more limited scope, but the loss of a case last week has caused me "to take stock," so to speak.

This case, referred by Dr. Swartz, was seen early, diagnosed correctly, operated upon promptly (within twenty-four hours after patient first noticed symptoms) and still was lost. So early, it was a border line case. We found cloudy serum and appendix discolored but not open. It was removed after a difficult dissection, because we did not wish to tear things loose to bring the caecum and appendix up into the wound. The man had a very thick, fat abdominal wall. It was considered safe to close up the incision. Twenty-four hours later he showed signs of deterioration, and in spite of lavage, opening of incision, Fowler's position, Murphy drip and the rest, he died.

I quote E. M. Stanton, who in tracing the processes of appendiceal inflammation and repair finds the following: "There is found a striking similarity in the fundamental pathological

changes as they occur at each of the successive periods following the onset of symptoms. In every case of acute appendicitis on the first there was definite blocking of the lumen of the organ; proximal to this the changes were slight, while distal to the obstruction the lumen was distended to its maximum diameter, there was a deposit of lymph on the peritoneal surface, and at the end of twenty-four hours there was microscopic evidence of gangrene.

"Catarrhal appendicitis was not found as a primary condition and was present only in those cases operated upon during an interval, or in appendices removed incident to some other abdominal operation.

"The peritoneal lesion of the first day is a fibrinous or sero-fibrinous exudate, and may be ignored from the surgical viewpoint.

"The changes on the second day are characterized by an intense leucocytic infiltration of all coats, accompanied by ulceration of the mucosa, and a well marked fibrinopurulent peritoneal exudate, accompanied by an increase of the areas of gangrene.

"On the third day the process of destruction reaches its maximum, and in the non-malignant cases there are evidences of repair.

"The peritoneal changes on the second day are of two types, either a localized fibrinous peritonitis or a diffuse peritonitis, and it is in the latter cases that appendicitis has its greatest mortality.

"Purgatives greatly aggravate the inflammatory condition, and their administration is followed by perforation and peritonitis. The earlier the peritoneum is put at rest and food and purgatives withheld, the more localized the condition will be.

"In the fourth, fifth, and sixth days in the less severe cases, the repair progresses rapidly, while in the more severe cases there are evidences of the formation of true abscesses cavity formation, but not until the seventh or eighth day are the walls sufficiently strong to permit manipulations incident to packing of the uninvolved intestine preparatory to drainage."

Time will permit no detailed or extensive consideration of my subject, but let me emphasize these points:

Intestinal obstructions; acute and chronic, inflammatory and malignant, deserve much consideration at the hands of both general practitioner and surgical expert.

Second. Diagnosis must be prompt and in surgical conditions, operation must be made early to keep down the death rate. Early operation is easy and comparatively safe.

Third. In late cases more lives are lost by doing too much than by doing too little.

Fourth. Emptying the bowel and draining the intestine are to be attended to even to the sacrificing of speed.

Fifth. The use of laxatives and too frequent use of enemata, may increase rather than relieve intestinal stasis following operation. Frequently gastric lavage with complete rest is all that is required.

DISCUSSION.

DR. SWARTZ: I have nothing to add to what I said this morning about the case. The patient was simply a man who lacked resistance. This lack of resistance manifested itself within twelve hours after a simple operation for an appendiceal condition, which was diagnosed and operated on as quickly as possible. He went down as if he had been shot. The nervous symptoms were simply astonishing. He never reacted, except from the anesthetic, from which he reacted very promptly. He was worked over every minute until he died. It was one of those unfortunate cases that we sometimes meet with. The remarkable thing about the case is that his brother-in-law was operated on ten years ago, and died in two days' time. He was a big, strong man of thirty years. His habits were not so good, however, as in this case. This big, strong young man died of shock. As the doctor says, these things will happen, and you cannot account for them.

DR. VAN LENNEP: I feel *very* strongly in regard to this question. In regard to this case, I do not altogether agree with my old friend, Dr. Swartz. In a great many cases we open the abdomen and find a little serum. In many of these cases we have, perhaps, made a leukocyte count. We find a serous peritonitis and sew the patient up; and he gets a pelvic abscess, and dies of a progressive septic peritonitis. If I should offer a suggestion to my pupil, Dr. Hartman, I would say, in every case in which you have any doubt as to the presence of an abscess or infection, put a drainage tube down to the bottom of the pelvis, attach a syringe, and suck out the fluid; and if you do not get fluid, leave the tube in. Leave the wound open, and a week later make a secondary suture.

I have just run across a case that Dr. Deaver and I worked over. Men engaged in gynecological work take all kinds of liberties with the pelvis, and are inclined to do so with the abdomen, forgetting that when it comes to infections derived from the intestines, we are dealing with a very different proposition. You can do a good deal of work on a pus tube, and the patient will get well; but if you do the same amount of work on the intestine, you get these abdominal infections. When we are in doubt, we should practice self-restraint; and in almost every case in which we have any suspicion we should put a big tube down in the pelvis. You can sew the peritoneum up to the tube and when the tube comes out the wound falls right together.

With regard to the question of lavage I would say that in every abdominal case, the minute the surgeon is through, we wash out the stomach. In a great many cases that we used to talk of as cases of septic peritonitis, the stomach was filled with mucous, bile and gas. These are cases of acute dilatation of the stomach, and if you percuss, you can make out the outline of the stomach and the colon below.

I had a case with Dr. Elliott, in which we employed a little metal bulb with a soft tube. We gave the boy a glass of water to drink, and he swallowed the tube. We passed the tube alongside of his face, and ran the end into a reservoir. He drank all the water he wanted, and it ran out again all the time. This is a continuous washing of the stomach. The tube is very easy to swallow. Its tip looks like a cherry stone. The cost is only about two dollars.

To me, one of the most interesting questions is malignant disease of the small intestine. Dr. Elliott met with two cases, and I with one, of sarcoma of the small intestine. Malignant disease of the large intestine has an interesting natural history. In malignant disease of the caecum, owing to the chain of glands that run from the colon all the way up to the duodenum, you must take out the upper end of the colon and the lower end of the small intestine, and this pyramid of glands all the way up. Where you get the epithelioma type in the rectum you have no metastasis. I have done the artificial anus operation, and the patients have lived for years. The operation of Dr. Willy Meyer is ideal.

OTITIC THROMBOPHLEBITIS.

BY

GEORGE J. ALEXANDER, M.D., PHILADELPHIA.

IN a short paper one can only consider the most essential features of the subject of "Otitic Thrombophlebitis," caused by chronic and much more frequently acute suppurative otitis media in two ways; namely, First. By the suppurative middle-ear inflammation, and, second, by metastasis.

Anatomically, the sinuses are venous channels situated between the two layers of the dura mater and form a network that separates the ear from the cerebral cavity; composing this net are, the sigmoid sinus, the transverse sinus, the centrally located cavernous sinus, the superior and inferior petrosal sinuses, and the petrosquamos sinus which is usually absent in adults; continuous with the above are the jugular bulb and the jugular vein which crosses the sternocleidomastoid muscle just behind its anterior border at the middle third which is the most superficial part of the vein, its lower third is under and near the posterior border of the muscle. The vein is separated from the muscle by a thin fascia which includes the carotid artery at about the same depth medianward and the pneumogastric and sympathetic nerves which are deeper seated; the vein being isolated from the artery and nerves by a thick vascular sheath.

The sigmoid sinus and the jugular bulb are in close topical relation with the ear and are in the order mentioned the most frequent seats of thrombophlebitis, even though the distance between the sigmoid sinus and the ear varies greatly, the external signs of which, so far as we know were first demonstrated by Dr. Wieser, of Vienna, and myself.

The blood-pressure in the venous sinuses and jugular vein is low under normal conditions and the current is in the axis of the vessel with but little motion along its walls.

When the inflammatory process spreads from the region of the ear by way of continuity to the sinus, there is set up an inflammatory infiltration and suppuration of the external connective tissue layers (suppurative periphlebitis) which in turn leads to inflammation of the venous wall itself and finally to destruction of the endothelium followed by thrombosis of the sinus contents.

The thrombus may be either partial (parietal) or complete

(obturating), adhering quite firmly to the inflamed parts of the wall and may spread to all the sinuses in the meninges and downward through the jugular bulb involving the jugular vein to any extent even as far as the heart; changes in the parts surrounding the sinuses include pachymeningitis interna and externa, suppurative meningitis, intra and extra-dural abscesses, etc.

The color of the thrombus ranges from dark red to yellowish-green, according to its character; it is seldom sterile, the fresh red thrombus often containing pure cultures of streptococcus pyogenes while the yellowish-green suppurative ones are sterile.

Where the cerebrospinal fluid shows a change from normal there are no doubt, early stages of meningitis, as proved by the circumscribed acute cerebral oedema and hyperaemia of the pia-mater.

It is rather surprising that such a serious affection can be present without symptoms, though earache and headache in the occipital and mastoid regions are usually present and sometimes symptoms of slight irritation of the central nervous system, except in cases where meningitis is already a complication, there is headache, restlessness, nausea and vomiting, numbness, delirium, slow pulse, paralytic manifestations, etc.

The true pyemic form of thrombophlebitis, the one that is generally present is characterized by a temperature curve of the pronounced intermittent febrile type. After the temperature has been normal for several hours, chills will occur, followed by a rapid rise of temperature from normal or below to 102° to 104° or more; the chills vary in number from one at the onset of the sinus affection to several a day for perhaps twenty-five times. There is restlessness, the mind is clear, the patient looks particularly ill and icterus is frequently present, with swelling and tenderness along the posterior edge of the mastoid, and when the jugular vein is involved there may be swelling of the face together with a hard, cord-like induration of the vein on the affected side of the neck, as well as diminished active and passive motion of the head, and in this variety (pyemic) metastases occur in any part of the body.

Another type is that of septicemia, characterized by a continuous fever and symptoms of general infection, it does not occur frequently, and may be associated with the pyemic type.

The presence of an acute otitis media adds difficulty to the diagnosis because of intense symptoms just prior to and during the period of retention of pus, cold feeling with the continuous type of fever, and oedema over the mastoid may conceal the symptoms of thrombophlebitis particularly because the latter sometimes occurs with a continuous temperature curve, without chills and with mastoid symptoms. I was fortunate enough to see exactly such a case in Alexander's clinic and it added much responsibility and difficulty to the diagnosis. Leutert assumes that a fever continuing several days after subsidence of the acute stage and accompanied by a free discharge of pus from the tympanic cavity, suggests the possibility of thrombophlebitis in acute otitis.

In the absence of serious ear symptoms there is danger of referring chills, intermittent fever and icterus to such other diseases as influenza, gastro-intestinal affections, central pneumonia, etc., without considering the ear as the possible source of the symptoms and assuming that the sinus affections have already run their course thus leading to the danger of waiting before adopting operative procedures on the ear until the favorable time for successful operation has passed.

Again great difficulties may be encountered in incomplete, unreliable, or negative histories, or an afebrile course. A single sign may suggest the presence of thrombophlebitis; for instance, Alexander considers restlessness at night a symptom of sufficient importance upon which to base the diagnosis and I saw him demonstrate its value by finding the thrombus at the operation. It is fortunate too, that in obscure cases the diagnosis can be made at the operation for or indicated in an acute suppurative mastoiditis.

It may be necessary particularly in children to exclude simple otitis media taking an atypical course, malaria, angina, pneumonia, typhoid, otitic descending abscesses and certain initial stages of acute infectious diseases.

As to the differentiation between thrombophlebitis and other intracranial affections the simple cases do not offer any difficulty since the former is characterized by the absence of cerebral symptoms; it should be remembered, however, that all these conditions may co-exist and that meningitis and perforation of a cerebral abscess may set in with chills. The urgency of the case will not permit of observing whether the fever is intermittent or continuous, and from a practical point of view the

only thing to do is to ascertain if there is present an intracranial disease of otitic character to sufficiently indicate operation, at which time there will be no difficulty in recognizing one or more intracranial conditions.

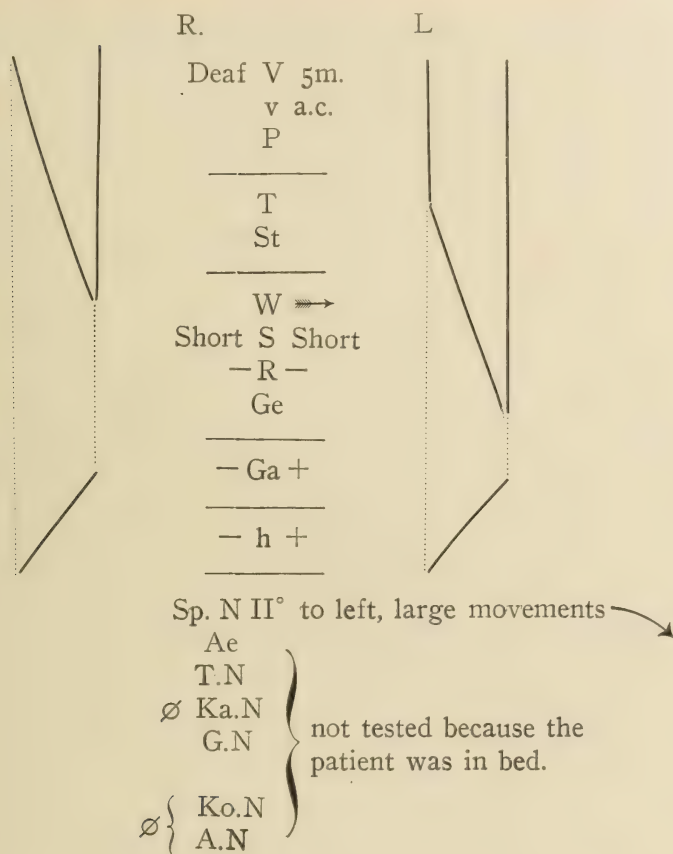
Diffuse labyrinthitis, another condition which may be present as a complication with thrombophlebitis or vice versa, is admirably shown in the following history which I present through the courtesy of Alexander. It pictures clearly the typical symptoms of thrombophlebitis as they become manifest during the already established labyrinthine symptoms.

Male, E. S., age 35 years. Father and mother have been dead for a long time; has one sister living and well. During childhood he had inflammation of the lungs; at the age of six years he was struck on left ear with an open hand, since which time there is impaired hearing in that ear but never a discharge. At the age of fifteen years the right ear began to discharge following an otitis media and has been discharging ever since.

Eight days ago, on arising in the morning, he was seized with a severe attack of dizziness and vomiting, the dizziness lasted two hours; this occurred again the following days but with less intensity and he went to his work every day until four days later when he remained in bed with chills, fever (temperature 102°), headache on the right side, head held toward the affected side, icterus, ideas not clear, reflexes normal, and when he stands, or rises up in bed he becomes dizzy.

Otological Findings.—The right ear showed a foetid secretion, a marked degree of sinking of the posterior superior wall of the external meatus and a bone fistula in the same region. The left ear showed a thin retracted drum membrane with chronic adhesive processes.

The functional tests showed a dead labyrinth on the right side and a high degree of shortened air conduction, considerable shortening of bone conduction of the left ear with spontaneous rotatory nystagmus to the left unaffected side.



The operative procedures were as follows, ligation of the right jugular vein, radical mastoid, labyrinth operation and the sigmoid sinus opened and thrombus removed.

The findings were, cholestatoma in the antrum, a large fistula in the horizontal canal, a profuse discharge of serum from the labyrinth, the sinus wall thickened, green and covered with pus and a thrombus in the sigmoid sinus. There was a discharge of serum from the labyrinth for six days after the operation and the temperature curve was one of pyemia. The patient finally made a good recovery.

Thrombophlebitis is a surgical disease in which spontaneous healing is so rare that it does not deserve serious consideration. Through modern surgery results have been obtained that had not previously been anticipated.

An operation should be carried out in such a way as to pre-

vent if possible sequellæ, some of which are otitic pyemia, suppurative meningitis, thrombosis of the cavernous sinus, brain abscess, quetastasis, bacteremia and toxemia.

The Operation.—In all instances where the operator can feel assured that a thrombus has formed, ligation of the jugular vein is the first step. If the disease is due to acute ear affections antrotomy is performed as the first step, and in chronic cases radical exposure of the middle ear spaces is required; a liberal opening should be made, all diseased tissue removed and the surgeon should not hesitate to remove all the normal bone necessary to trace out the sinus-phlebitis and go well beyond the diseased area of the sinus. In baring the sinus a chisel and a bent Luer's forceps are the safest instruments, the curett should never be used; the sinus wall and dura should be separated from the bone before using the forceps in order to prevent injury as they are closely adherent.

The sinus having been exposed it is noted if its color is a dark blue and if it is pulsating as does the normal sinus, or if it is gray or yellowish-green with no pulsation as when a thrombus is present. The next step is to decide if a thrombus exists, and if it is partial or complete; the best method is to make a puncture 1-2 mm. in length with the scalpel, if the sinus is normal the blood will be expelled rapidly, if a partial thrombus be present it exudes slowly, or in small quantities, in the absence of blood the puncture is elongated and the thrombus is detached from the sinus wall and if by this time there is no blood it is a complete thrombosis.

The presence of a thrombus assured the opening is further enlarged and if partial, a sharp spoon is introduced with its concavity toward the lateral wall of the sinus and the thrombus attached to the wall carefully removed.

In complete thrombosis longitudinal dissection is made upward, the end of the thrombus delivered and the hemorrhage controlled by gentle pressure of an iodoform wick inserted into the sinus, the sinus wall is now divided downward to the lower end of the thrombus to the jugular bulb, the thrombus extracted and the hemorrhage controlled as above, bleeding should be slight if properly managed.

In a partial thrombus the wall of the sinus is left in position and in complete the lateral wall is removed as far as there is any inflammatory process; if the medial wall of the sinus is gray or yellowish-green it means that the phlebitis has spread to this

part and there is present a probable meningo-encephalitis, to decide this a lumbar puncture must be made.

The operation is completed by packing the wound with iodoform gauze and the skin flaps loosely fastened over it; the first dressing is made the first or second day after operation and every day thereafter until far enough improved to require less attention.

Reference: Alexander; Politzer.

DISCUSSION.

DR. GILBERT J. PALEN, Philadelphia: Sinus thrombosis is a very interesting subject. One thing that Dr. Alexander said I have not found in my experience, and that is the occurrence of frequent chills in the daytime, with frequent rises of temperature. I have had a long series of cases of sinus thrombosis, and in my early practice I was disappointed that they did not agree with the textbook description of the condition. Some exhibited not more than one chill, and there were not the frequent rises of temperature that I had been led to expect. It is a rare condition in acute otitis media—not nearly so common as in cases of chronic otorrhœa.

The one point that pleased me most in the paper was the fact that Dr. Alexander brought out the necessity for careful examination of cases of otorrhœa, and that we may have already existing a serious sinus thrombosis with apparently no symptoms; although, if we examine the patients carefully, subjectively and objectively, and make a thorough search for bacteria by means of blood examinations, we frequently discover the presence of these. By eliminating other foci of infection, this gives great aid in the diagnosis. We have had a number of cases in which the diagnosis has been questionable, there being continued temperature and other symptoms in which we have been able to find bacteria in the blood and, by eliminating other foci, to make a diagnosis of sinus thrombosis. Libinau and Zeller have written a great deal upon this subject and have shown that the finding of bacteria in the blood, in cases of otorrhœa, is of marked aid in the diagnosis of sinus thrombosis.

On account of the connection between the cavernous and lateral sinuses, it is possible for a damming up of the current in the lateral sinus to take place to such an extent that the first symptom noticed is a protrusion of the eyeball. I have had such a case, in a patient with obstinate fever for a considerable period. The only objective sign was proptosis, point-

ing to an intracranial lesion. Sometimes cases of sinus thrombosis are treated for typhoid fever. I have seen a number of cases in which that diagnosis was made, and it was only discovered later that the patient had a history of aural discharge. The subject is too deep to take up in a few minutes. It is a condition so liable to arise during the course of chronic otitis media that it is very important. I have been interested in the subject for years, and have tried to impress upon those, with whom I have come in contact, the necessity for a careful examination of all cases during the course of chronic otorrhœa.

A VISIT TO THE MAYO CLINICS, AUGUST, 1915.

BY

H. H. STANSBURY, M.D., BALTIMORE, MD.

In company with Dr. Chas. L. Rumsey of the Surgical Staff of the Hahnemann General Hospital the writer made a visit to the Mecca of American surgeons in the little city of Rochester, Minn., where the force and truth of a prominent author was realized when he said "If a man can preach a better sermon, write a better book or make a better mouse-trap than his neighbor though he build his house in the wood the world will beat a path to his door."

Rochester is a little city with a permanent population of 10,000 inhabitants and a transient population of 300 more, either as patients or visitors to the Mayo Clinics. It is 312 miles west of Chicago and over a hundred miles south of Minneapolis and St. Paul, its nearest large cities.

It is now nearly forty years since Dr. William Mayo father of Drs. William J. and Chas. H. Mayo, whose health had been wrecked with malarial chills in Indiana, determined to leave the malarial section and traveled westward until health was restored and a better climate found. Rochester now stands and marks the end of his pilgrimage, and in my opinion the location of the greatest surgical clinic in the world today.

Here numbers of surgeons make it a rule to visit annually the clinics of Drs. William J. and Charles H. Mayo and their corps of well trained assistants to gather inspiration from the very air of the surroundings as words of wisdom fall from

their fluent though modest lips and their deft fingers do surgery equal to any and surpassed by none. Hundreds of men go to their respective fields better prepared and resolved to do a higher class work the succeeding year.

As soon as we reached Chicago we went to the Great North Western depot and in having our baggage checked to Rochester we were at once asked if we were going to "Visit the Mayos?" by the agent. When we took the train for Rochester the number of invalids and cripples were quite noticeable, as this was their point of destination as was proven next morning.

As visiting physicians the first place to visit was St. Mary's Hospital, here we were requested to register, check our street coats, and put on a freshly laundered short, white coat, provided by the Surgeon's Club. This is attended to by a young lady employed by the Club, who asked if we wished to have our names submitted for membership. She then gave us a printed list of the operations for each of the rooms.

We found sixty visiting surgeons from nearly as many states or foreign countries. I happen to remember now, two surgeons from the U. S. Army, a medical missionary each from China and India. There were men also from Brazil, South Africa, Canada, New York City, Philadelphia, Chicago and Pittsburgh. Operations begin every morning promptly at eight o'clock and continue until the cases are finished, which is usually about one P. M. There are six operating rooms on the top floor of the east wing, well lighted from side and top and large enough to accommodate twenty-five to forty visitors on an iron stage on two sides of the room. These rooms contain all that the average modern operating room does and some that is ultra-modern. For example, all tap water in the operating room is sterile, the surgeon frequently washing his hands at the spigot and going directly back to his work—each of the rooms is provided with a pump operated by being attached to a spigot and used for pumping fluid or pus from cavities, always readily attached at a moment's notice. Two of the rooms have large French plate mirrors immediately over the operating table, tilted at such an angle that visitors may look directly into the field of operation by looking into the glass. The electric bells and signals connected with the operating rooms are worthy of notice. As soon as the specimen is removed by the surgeon the nurse presses a button and a pathologist calls for and makes an immediate report. I have

seen a specimen removed from the operating room, sections made and a microscopical report returned in four minutes. Another push button is used to ring a bell announcing the beginning of an operation—another flashes a light in a ground glass signal box opposite the number of the operating room and the kind of case to be operated. This box can be seen from the doctor's waiting-room or the corridor, as it is set in the wall between. The visitors can thus go from one operating room to another selecting the cases he is most interested in by these signals. I should say the morning's work would average 30 major cases daily except Sunday, in St. Mary's Hospital alone. St. Mary's Hospital has a capacity of 375 beds, always full; with a waiting list while we were there of 250 patients. Patients are gotten out of the hospital in a week or ten days after major operations to one of the many convalescent homes or hotels in the town. The new Colonial Hotel-Sanatorium opened the first of May last with two hundred beds and operating rooms. Here we saw Dr. Henderson, an English surgeon, who is acting as assistant to Dr. Judd of the Mayo Clinic, operate seven cases one afternoon, all of which were chest cases, mostly empyemas. Every bed here is also occupied.

The Kahler Hotel and Cook House, accommodating about two hundred guests each, have operating rooms and depend principally on their support from patients of the Mayo Clinic. The Zumbro Hotel, the best in the city, has no operating room and are not desirous of patients as guests, but even here the influence of the clinics is so much in evidence that the management has placed a sign just outside the dining room which reads: "Please do not discuss operations in the dining room."

THE SURGEON'S CLUB.

Is a permanent organization fostered by the Mayo Clinic, is composed of the visiting physicians in good standing. A temporary fee of \$2.00 or a life membership of \$5.00 is charged. The Club meets every afternoon at 3 P. M., for the purpose principally of hearing the reporters for each of the operating rooms which had been appointed the previous day by the secretary. He reports each case by giving the principal points in the history and operation and remarks of the operator. The report is then discussed and questions freely asked. In this way a good review is had of the day's work, new ideas

heard and points not clearly understood are likely to be satisfactorily cleared up. The meetings are usually well attended, after which there is a lecture by a member of the staff, a pathological demonstration or an interesting case presented. Once a week the Club is invited to accompany a member of the staff through the Mayo Clinic Building.

THE MAYO CLINIC BUILDING.

In use now for nearly a year, though mechanics were working on some of the laboratories on the fourth floor when we went through last month. It is a five-story building and covers the fourth of an ordinary sized block. The basement is marble and stands well out of the ground, giving ample light on all sides, the super-structure is brick with marble trimmings and cost a half million dollars. It is plainly evident on the inside expense has not been spared on furnishings or equipment.

On the ground floor or basement, is the heating and lighting plant, pharmacy and store rooms. A good portion of this floor is devoted to the bureau of records and statistics, which is carried well nigh the point of systematic perfection. The out-patient clinics and the clinic in orthopedic surgery, serving in the main ambulatory and convalescent cases are provided for on this floor. The general waiting room is on the floor above, with a seating capacity of about two hundred and fifty, and a desk at each of the four corners. At one of these desks a patient gives his symptoms sufficient to be assigned to a department. He is looked over here and is referred to one or more specialists for examination, each of which sends his written results back to the head of the department to which he was at first referred. These examination and consultation rooms are on the first and second floors, arranged on either side of wide corridors which serve as waiting rooms.

A system of colored lights ranged along the corridors announces the presence and whereabouts of each leading clinician. A check upon his presence and location is also kept at a central information bureau, in which he registers upon entry. The bureau clerks, through a system of signals and telephone communications keep touch upon his movements and locate him upon occasion. The registering and communicating devices of the bureau suggest a sort of mechanical detective agency. They give the keynote to the conduct of the clinic: viz., Co-operative Investigation.

The second floor is about equally divided between the clinical service and laboratory research. Here is a series of rooms used for cystoscopic and proctoscopic examination. Last year there were over three thousand examinations made in this department. On this floor there is an entire wing, thirty-four rooms in all, assigned to X-Ray laboratory in which diagnosis and research play the greater part and therapeutic the lesser.

The third floor the purely scientific and literary level of the Clinic is found. It includes the laboratories of histology, pure pathology, physiological and pathological chemistry. These are not laboratories by name only, but are the work-rooms of some of the most distinguished investigators of the United States. Here E. C. Kendal, Ph.D., is engaged solely in the chemistry and analysis of the thyroid gland. He has recently succeeded in isolating in crystalline form a compound containing 60% Iodin from the gland. On the first of last month Dr. E. C. Rosenow formerly of Chicago, a distinguished research worker was made chief of the department of experimental medicine. His recent and valuable contribution in a large series of experiments proves that gastric ulcer can be experimentally produced by the hypodermic injection of certain isolated products of gastric ulcer.

The library of some four thousand volumes and a reading room with not only the leading medical journals of the world but other periodicals of general interest, and an assembly room take up the greater part of this floor.

The fourth floor is given up to the pathological museum, pathological preparation laboratory, photographic gallery and developing rooms, workshops and repair rooms.

Finally the roof-house crowns the building and crowns it not only in structural but in scientific and esthetic features. Here are to be found a series of animal houses and enclosures, storerooms, and anatomical specimen shop, an X-Ray experiment room, an animal experimentation laboratory—including sterilizing, anæsthetizing, operating and recovery rooms furnish its scientific conveniences. Dressing room, toilet rooms, bath room and lastly a floral conservatory represent its esthetic features.

For years the profession has been visiting this clinic in constantly increasing numbers. It has really been a post-graduate school to many and within the last year, the wealthy University of Minnesota has recognized and decided to utilize this clinic.

The Mayos have offered to spend a million and a half dollars to carry out this project and build a hundred bed hospital for purely experimental medicine—becoming a part of the University of Minnesota. This has been accepted and the plans are well under way, in another decade it is safe to predict that the little path now beaten through the woods to these doors will have become a great highway used by men of all nations on their pilgrimage to one of the world's greatest post-graduate schools of surgery and research.

**THE RECOGNITION AND SIGNIFICANCE OF SYMPTOMS AND HISTORY
IN THE EARLY DIAGNOSIS OF LUNG TUBERCULOSIS.**

BY

BRANTLY F. PARKER, M.D., YORK, PA.

(Presented before the Central Pennsylvania Homœopathic Medical Society, Lancaster, Pa., August 12, 1915).

MR. President and fellow members of the C. P. H. M. S.: with your kind permission I will read as an introduction a part of Flick's paper on the "Diagnosis of Early Cases of Tuberculosis," as found in Vol. I. Part II., proceedings of Section II., Sixth International Congress on Tuberculosis.

"Tuberculosis is probably always primarily a lymphatic process. As such it cannot be diagnosed except by reaction. Occasionally the lymphatic glands manifest the presence of the tubercle bacillus by enlargement. It is possible, however, that when this happens, there is mixed infection and that the enlargement occurs only when mixed infection exists.

"Diagnosis of tuberculosis of the lymphatic tissue, when there is little or no enlargement of the glands, is impracticable. The condition is not a disease in the ordinary sense of that word since it produces no discomfort and no interference with the ordinary pursuits of happiness. Tuberculosis of the lymphatics may produce changes in physiological function and in the form of the body. These changes do not set up disease, however, in the ordinary sense of that term. Underweight relative to height, hypertrophy of the lymphatic tissue in the mucous membranes, bad muscular development and various nervous symptoms, may be due to it, but the relationship between it and the condition is not recognized. Immunity, no doubt, frequently develops in these mild forms of tuberculosis

and recovery takes place without the process having been discovered. These are the recoveries which leave the earmarks found at autopsy upon death from other causes and help to swell the number of implantations of tuberculosis recovered.

"The form of tuberculosis which most concerns the physician is lung tuberculosis. The lungs are most frequently the seat of the tuberculosis process next to the lymphatic system and usually the first in which invasion of parenchymatous tissue occurs. This is because the lungs are most exposed to implantation when tubercle bacilli pass from the lymph into the blood. The lymph which goes into the blood passes through the lungs before it goes into any other part of the body and the lungs are apt to strain out any bacilli which may exist on it.

"The apices of the lungs along their posterior pleural border, probably are the primary seat of lung tuberculosis. Probably both sides are implanted at the same time. But usually one side only has a successful growth for the time being and, as a rule, this is the right side. The growth is usually very small and does not give rise to symptoms which attract attention. This is the real incipient stage of lung tuberculosis, the stage in which it would be most profitable to find the disease. Unfortunately it is not often found in this stage.

"The discovery of tuberculosis in this stage is possible but difficult. The chief obstacle in the way is the general ignorance upon this subject. The people at large have an idea that tuberculosis cannot exist without violent cough, sweat and emaciation, and the medical profession unfortunately still look upon everything short of a fatal condition of the lungs as a mere cold. With the mind preoccupied with erroneous ideas both by the laity and the profession, tuberculosis of the lungs is not looked for until the health is seriously undermined. For the diagnosis of tuberculosis when the process is still limited to the outer border of the lung and the infiltration area is small, the mind must be alert and follow every clue which arouses suspicion. If a person is in ill health at all, if he deviates from the normal in weight, in color, in strength, or in his physical functions, tuberculosis should be looked for. If a history of fruitful exposure to the disease exists, even though the general health is good, it should be looked for. In this connection one should bear in mind that early tuberculosis of the lungs may produce symptoms and may not produce them. If symptoms exist those symptoms

should be followed out until a logical explanation of them has been found. If a history of tuberculosis exists and there are no symptoms, investigations should be made until the existence of the disease can be definitely excluded. In this regard nothing should be taken for granted.

The subjective symptoms in these cases may be an occasional cough, hypersecretion of mucous in the respiratory tract, loss of appetite, a feeling of malaise, especially in the forenoon, flushes, sometimes headache in the afternoon and occasionally a hypersensitiveness of the entire nervous system. There may be alternating vivacity and depression."—Flick.

Before leaving the subject of history and symptoms, I would like to quote from Montgomery's splendid paper, entitled "Differential Diagnosis of Incipient Pulmonary Tuberculosis," found in the same volume as Flick's paper.

"In the diagnosis of incipient tuberculosis, or of incipient disease in general, the history and symptoms may be of paramount value; furnishing at times the only evidence of illness in the patient, so they must be investigated to the fullest extent. Cases of tuberculosis in the family may be overlooked unless the various illnesses and deaths receive detailed and searching inquiry. But while a positive family history is often of value, a negative one is to be disregarded unless very complete and reliable."—Montgomery.

Before enumerating the prominent signs of early lung tuberculosis, allow me to read a few paragraphs from Calmettes' Directory of the Pasteur Institute, a masterly paper delivered at Horticultural Hall, Philadelphia, September 26, 1908.

"Before engaging in battle the generals who direct an army ought to inform themselves as accurately as possible concerning the positions occupied by the enemy whom they are about to attack, his numerical strength, the range of the artillery that he can bring into action and his bases of supply. To obtain this information is the duty of the vanguard and skirmishers. If these branches of the service neglect their duty and permit the enemy to surprise the camp or fortified place, the battle usually ends in the defeat of the defenders. History tells us that beleaguered cities almost always fall into the power of the besiegers."

The same may be said to be true of tuberculous infection. When it has once established itself in a sensitive organism and has begun its ravages, the body finds it very difficult to get the mastery of the invading microbes.

That is why the question of early diagnosis is extremely important in tuberculosis; and since we now know that most tuberculous manifestations, even those which affect the lungs, are more readily cured if they are discovered early, and suitable treatment is adopted. Clinicians as well as investigators should direct their efforts toward increasing the number and effectiveness of the available means of information.

The problem is exceedingly complex because the tuberculous infection remains latent for years, during which time it is compatible with all the appearances of perfect health. The physician's suspicions as well as the patient's, are usually aroused by the sudden appearance of morbid symptoms, which are often exceedingly grave, following frequently some infectious disease, such as influenza, measles, variola, whooping-cough, typhoid fever, mumps or rheumatism. (From my personal observations I would add gonorrhœa and pregnancy), or developing insidiously in the wake of some digestive trouble or other chronic disease, such as diabetes, kidney trouble, cardiac or mental disease, epilepsy, dementia, malignant tumors, and the like. It often happens that nothing has previously occurred to call attention to the initial stage of bacillary invasion, and in order to discover or even suspect its origin, the history of the case has to be traced back to some remote anterior date. p. 33 "Calmette."

It is not within the scope of this paper to recount the theories of Von Behring or Koch or to dwell upon the investigations or experiments that have been carried on in various countries, nor the astounding communications of the eminent authorities or to dwell on differential diagnosis.

The only reason I have for dwelling so long on history and symptoms as well as quoting the eminent authorities, is the fear that we as homœopaths in our endeavor to prescribe the similimum often fail to recognize many histories and symptoms as so called incipient lung tuberculosis.

In speaking of the early clinical signs, I have taken the privilege of quoting from Calmette, Penzolat, Darenburg, Chirquet, Ott, Holmsen, Landouzy, Barber, Grancher, Hamman, and Berry, ad. lib.

TEMPERATURE.

Among clinical signs that should be sought with greatest attention that which deserves to be mentioned first, is instabil-

ity of the body temperature. The irregularities of temperature observed after alterations of slight fatigue and repose in persons normally fever free, indicates a functional disturbance of the nutrition, which, in the majority of cases is associated with beginning tuberculosis. In general, the thermic equilibrium is disturbed in tuberculous individuals before any other manifestation makes its appearance. An hour's walk is enough to produce an elevation of temperature from four-tenth's to five-tenth's of a degree (centigrade). Dr. John Berry of Pennsylvania State Sanatorium, at Mont Alto, has made extended observations of subnormal temperature as a diagnostic sign, but inasmuch as his observations have not as yet appeared in print, I hesitate to quote him. Observation of temperature at short intervals (every three hours) during several periods of twenty-four hours, day and night, may put the examiner on the track of a suspected diagnosis.

To secure correct readings the thermometer should remain in the patient's mouth a sufficient period—five to ten minutes—and should be taken before and after exertion as well as at frequent intervals.

Bear in mind other sources of slight rise in temperature such as occur in other forms of slight toxemia, infected teeth and gums, diseased tonsils, slight latent infections in the genital tracts of both sexes, fevers of nervous origin and a tuberculous focus located in some portion of the body outside of the lungs. The patient in many cases is not aware of fever though associated symptoms may be present. On the other hand, it is well to recognize that distinctly active tuberculosis may occasionally be present even though fever is totally absent.

Hemoptysis is considered an early sign by Hammer and a great many other writers. A record of hemoptysis even if there has only been streaking of the sputum with blood, and even if the record dates back, should always make one seek to establish a definite cause for its occurrence. Special warning should be given against attributing too readily a small hemorrhage or a slight streaking of the sputum to a simple bronchitis.

The weight: The importance of the weight record in a diagnosis of tuberculosis is taken advantage of by everyone. It is well to know a patient's weight in proportion to his height, his average weight, and the extremes before he became ill and the extremes since his symptoms developed. A general state of subnormal weight is not as significant as an appreciable

loss. A very decided gain under favorable conditions suggests tuberculosis; a failure to gain under proper treatment, the other evidences of toxemia and the physical signs becoming no worse, furnishes some evidence against the diagnosis of tuberculosis.

The sputum: It is a matter of regret that even in these enlightened days we have to reiterate that absence of tubercle bacilli from the sputum, does not indicate freedom from tuberculosis. On the other hand, it should be recognized that the least suspicious looking sputum may contain tubercle bacilli. In doubtful cases the sputum should be examined daily and twenty-four specimens should be used.

The pupils: Dilated pupils indicate some form of toxemia and is almost always found in early tuberculosis. Generally both pupils, but sometimes only one is dilated.

Physical signs: By Grancher's method of delicate auscultation, it is possible to recognize pulmonary tuberculosis in its germinating stage. Instead of attempting to define all the noises which the ear is capable of perceiving,—inspiration, expiration, rales and the like, he confines himself solely and exclusively to auscultating the inspiration and then comparing under the two clavicles and in the suprascapular fossæ, the inspirating sound on both sides of the chest, ignoring all other auscultatory phenomena. The two inspirations should produce on the ear, exactly the same sensations of amplitude and softness characteristic of the vesicular murmur. If there is a perceptible difference, if on one side the sound is more feeble or harsher or interrupted (*staccato*) there is a lesion at that point.

It is well to remember that feeble, rough, harsh and interrupted breath sounds, are found in early tuberculosis and that bronchi-vesicular respirations in moderately advanced and in advanced cases are also found.

Anæmia: The statement is made by some clinicians that the changes in the inspiratory and expiratory note at the right apex, so often found in young anæmic females, should not be regarded as evidence of a tuberculous lesion at that point. I believe it to be misleading as it seems more reasonable that the tubercular invasion causes the anæmia rather than that anæmia causes the change in the normal breath sounds found in this area.

GLYCOSURIA IN PREGNANCY.

BY

CHAS. M. BROOKS, M.D.

SOME time ago I had two cases of confinement in which both children were still born though perfectly formed and very large children. As I could not account for their death I began an investigation and found that both mothers were diabetics. The examination of a scanty literature upon the subject shows that two varieties of sugar may be found in our clinical urinalysis,—lactose and glucose. And so we may find one of two conditions present, lactosuria and glycosuria. On account of the vast difference that the differentiation of those sugars make in our diagnoses and prognoses, each is best examined separately.

Lactosuria—Lactose or milk sugar is present in the urine of a small percentage of cases just prior to parturition and of a large number at some time during the few hours or days immediately following delivery. It is also present occasionally just after the mother has weaned the child. In other words lactosuria may be present at any time when the breasts are functionally active and the escape of the product of that activity, milk, is impeded in any way. The condition is one of absorption, and so while lactose cannot be said to be a normal urinary constituent certainly it is not pathologic. So common may be this lactosuria that some have gone so far as to suggest urinary examination of professional wet nurses in whom the presence of lactose might be regarded as an indication of healthy mammary activity.

May demonstrated lactose in seventy-seven percent of his cases; McGann and Turner in one hundred percent; Williams in twenty-six percent and Payer in four percent. Dorlan claims it to be present in about twenty-five percent, while by Fehling's test Hirit found it in less than one percent. The great discrepancy in the results of these investigations is probably due to one of two things. The lactosuria is very often of short duration, being present at one examination and absent at the next and perhaps present at some later time. Or it may be due to the inadequate tests often used. Some of the reagents used for the detection of glucose being quite useless

when dealing with lactose. Without doubt, if urinary examinations were more frequently made by obstetricians immediately before and after labor, sugar would be more frequently found. Under ordinary circumstances, tests for albumin, examinations for casts and probable determination of urea, make the limit of investigation, and then possibly a month before delivery. Yet it must be remembered that lactose acts differently on many media than does glucose. Copper salts in alkaline solution are reduced by lactose after boiling, but much more slowly than by glucose. And so the Fehling, Frommer and Haines tests react but slowly. Small traces of lactose may be easily overlooked when performing these tests. Lactose does not ferment with yeast, in this way differing widely from glucose. It responds but incompletely to the phenol-hydratin test. Therefore, when we have a specimen of urine that does not ferment with yeast, responds to the alkaline copper solutions slowly and deflects polarized light strongly to the right, lactose is probably present. The reason for this lactosuria probably lies in the fact that lactose in the blood is not assimilable. When introduced into the alimentary canal it is perfectly assimilable, undergoing no change in the canal itself, but being transformed during absorption by the intestinal walls. When experimentally placed in the blood stream it soon appears in the urine unchanged. Lactosuria in the pregnant or parturient woman then, is an abnormal but not a pathologic condition. As such it requires no treatment. Many cases illustrating lactosuria might be cited, one, a patient with whom the writer has come into contact and one by Dr. Harberon. The first is a case of primipara who passed an apparently normal pregnancy, was delivered of a healthy child and is at present in a normal condition. In this case a small amount of sugar appeared in the urine for weeks prior to delivery, gradually increased in amount until about three weeks before confinement, it amounted to about one-half an ounce in the twenty-four hours. From this time a slow but steady decrease was noticeable, all traces disappearing soon after delivery and never reappearing. Both mother and child made a good recovery and at present are perfectly healthy. The case of Dr. Harberon was as follows: A young lady, Mrs. F., who in two previous lactations had a very copious supply of milk and had at weaning very distended and painful breasts requiring medical treatment, wished to wean her eleven months' old child,

although the flow of milk was still copious. When the suckling was stopped the breast became as before, very distended and painful, and the treatment of belladonna, painting and firm bandaging were resorted to. At this stage she came under his notice with three percent of sugar in the urine (13 gr. to 1 oz.), the specific gravity being 1039. Under the usual treatment, in four days the breasts were much improved, softer and not so tender and the urine contained a trace of sugar only, the specific gravity being 1026. Four days later the breasts were normal in consistence and size, the tenderness had disappeared and the urine was free from sugar, with specific gravity 1021. Now, the sugar fall corresponded exactly with the stages of recovery of the breast trouble and it is scarcely likely that the production of sugar in the liver would be so finely adjusted in sympathy with the breast changes as to drop from a larger production to none in the short space of eight days. The breasts were distended with milk and firmly bandaged so that the same condition held as in a knee distended with synosidal fluid which has been bandaged firmly to cause absorption of the fluid. Absorption does occur in the knee, why not in the breasts in the same conditions?

I may be pardoned for adding a word of advice which may be of use to some. If sugar be found in the urine of pregnant or suckling women look to the state of her breasts before diagnosing "diabetes." Often transient cases of glycosuria are diagnosed "diabetes" for want of sufficient care in investigation.

Glycosuria, quite different from this physiological state is the condition when a true glycosuria is encountered. On account of the important nutritive changes taking place during gestation, and the facts that all parts of the body are being affected by them, it is not surprising to find certain functional disorders in organs other than those directly connected with the uterus. Payer claims that women are less tolerant of sugar during pregnancy than at any other time. He was able to produce a temporary ailmentary glycosuria in eighty percent of his cases by increasing the amount of sugar ingested.

This brings us to a consideration of a much less common but by far more serious complication of pregnancy, namely true diabetes. Several things combine to make this complication an unusual one. In the first place, diabetes is less common in women than in men. The ratio being about two women to

three men. It is a disease of adult life, more particularly of advanced adult life usually appearing at or after the climacteric has been reached and so, of course, too late to connect it with pregnancy. This demonstrates that of the entire number of diabetics, only a small proportion will be at the stage of generative activity and capable of bearing children. And the probability of this complication is still further lessened when it is remembered that diabetes not only has a debilitating constitutional effect, but acts directly upon the centers controlling the sexual functions, including sexual impotence. It further predisposes to local inflammatory changes within the uterus, dysmenorrhœa, menorrhagia, and amenorrhœa. All of these things when combined with the many cases that have never been recorded, even if they have been recognized, bring our list down to very small proportions, so small as to be of questionable value as a source from which to draw conclusions. Pregnancy may occur in a true diabetic patient or diabetes may develop in pregnancy and continue after delivery, or may subside and recur in later pregnancies, puerperal diabetes. This latter may be present once, and skip the next or several following confinements and reappear in some later one. Of these two classes of cases twenty-eight instances have been reported in medical literature the results of which have been tabulated by Puoff, some of whose statistics are quoted:

No. of cases reported	28
No. of pregnancies	66
No. of labor at term	42
No. of miscarriages and premature.....	24
No. of mothers living	15
No. of mothers dead	13
No. of children living	31
No. of children dead	35
Percentage of mortality mothers	46
Percentage of mortality children	53

When we realize that future results follow for nearly one-half of the mothers and far more than one-half of the children, the severity of the combination is evident. So severe does Fry consider it that he has stated that "diabetics" should not marry. While this is a more stringent rule than many other obstetricians follow, it seems at times to be the best course

to pursue. As has been seen the chances for a diabetic to become pregnant are few, but if this does take place the prognosis is certainly grave. When pregnancy is present in true diabetics, are we justified in interfering with its progress? A glance at the foregoing table shows that in over sixty-five percent of the cases reported, labor has taken place at full term and in a normal manner although often the child was dead. There is at present insufficient literature to justify such a course. If, however, all the symptoms fail to respond to treatment and increase in severity, then may such interruption be conceded? Death of the mother occurs from coma or collapse, never from eclamptic attacks. Such a termination in other diabetics is frequently brought on by some severe exertion. So in pregnancy, it is probably not the pregnant condition itself that brings on the end, but that the physical exertion and shock incident to parturition is the direct cause. The conclusions may be reached as follows:

- I. The variety of sugar present should always be determined in pregnant cases.
- II. Lactosuria is not pathologic and so requires no treatment.
- III. Small amounts of glucose may occasionally be present, as an alimentary glycosuria and without significance.
- IV. Diabetes may be caused by the pregnant condition and so be a cause of fatal results.
- V. True diabetics seldom become pregnant.
- VI. Mortality for both mother and child is very high.

FIBROMATOSIS OF THE MAMMA.—Lexen (Munich) found fibromatosis in four cases, which clinically appeared malignant, and were radically operated. The case presented pain in the breast, hardness, adherent tumor and enlarged glands. The patients were at the age suggesting cancer. The tumors had no capsule, had grown into their surrounding tissues and on section have a reddish grey color. Histologically the connective tissue was increased and sclerosed, with hypertrophy of the contained glands and cyst formation from compression of the efferent ducts.—*Abstr. Zentralbl f. Gyn.* 1914—1407.

EDITORIAL

MEDICAL PRESCRIBING IN HOMŒOPATHIC HOSPITALS.

It has been the custom among a certain class of homœopathic physicians to criticize the prescribing in homœopathic hospitals as falling short of what might be reasonably expected in institutions founded and maintained for the purpose of giving the public the advantage of the homœopathic method of treatment. We do not doubt but that a certain amount of the criticism along this line is justified and that it has a beneficial effect in preventing hospital physicians from falling into a slipshod method of therapeutics which entails less mental effort than finding the indicated similar remedy. We have long been satisfied however that this criticism has been carried to an unjust point and that in the majority of homœopathic hospitals at least, the medical treatment approaches much more closely the true ideals of our school than is commonly found among the rank and file of homœopathic practitioners. In connection with this subject we have been much interested in the statistics collected by Dr. O. S. Rich of Brooklyn, and presented before the American Institute of Homœopathy at the Chicago meeting. Dr. Rich has gone very carefully over the prescriptions made in the wards and in the dispensary connected with the Cumberland Street Homœopathic Hospital of Brooklyn. He finds that out of 26,264 prescriptions recorded in the hospital wards for a period of one year beginning May, 1913, 24,358 or 86½ percent were homœopathic, and 1906, or 13¾ percent were non-homœopathic. In the dispensary, out of 16,143 prescriptions, 13,353 or 79 1/6 percent were homœopathic and 2970 or 20 5/6 percent were non-homœopathic. We do not find the statistics of other homœopathic hospitals available at this time, but, being associated in an official capacity with a number of homœopathic institutions we are satisfied that the statistics of the Cumberland Homœopathic Hospital represents a fair average of our up-to-date institutions. Leaving out of consideration however other institutions, we should feel that the statistics of the Cumberland Street Hospital would be suf-

ficient to satisfy the most enthusiastic advocate of homœopathy and of the character of prescribing done in this institution.

It is, of course, conceded by every physician who has made a study of the claims of Hahnemann and of the philosophy of homœopathy, that the homœopathic principle of prescribing is limited to the selection of the remedies acting upon the dynamic or vital functions of the body cells. It has nothing to do with antiseptics, with paracitides or with the purely chemical or mechanical action of drugs. The use of a purgative such as Epsom Salts is certainly not homœopathic; neither is the employment of such a substance for the purpose of securing an evacuation of the bowels contrary to the law of similars. It is a sphere of drug action entirely distinct and apart from the action of a curative homœopathic remedy and bears no relation to it whatever. The wisdom or folly of making use of the action of purgative remedies in the treatment of disease conditions is a mooted question which must be settled upon other grounds than those which concern the action of a homœopathic remedy. In the same way it must be said that the use of opium or morphine to relieve pain, a purely palliative procedure, which is never curative in its effects, is a matter entirely outside the sphere of homœopathic prescribing and has no more bearing upon the law of similars than the law of gravity has upon a ray of light. When we consider, therefore, that homœopathy can appropriately claim to deal only with that sphere of medical therapeutics which has to do with the selection of remedies for the purpose of bringing about a curative action through stimulation of the activities of the cells of the body and that there must arise in practical work, conditions where chemical, mechanical or palliative action of drugs must be employed by the physician who desires to act for the best interest of the patient, we consider it quite remarkable that a hospital with such a large service as the Cumberland Street Hospital at Brooklyn should show in its reports such a large percentage of strictly homœopathic prescriptions. We are convinced that a great deal of the criticism directed against homœopathic hospitals along this line, is unjust and that in the main the prescribing in our medical institutions fully measures up to what may be expected of a practical homœopathic prescriber who is acting for the best interests of the patients under his care.

G. H. W.

TETANUS.

THE large number of cases of tetanus developing as the result of wounds in the European War has served to draw the attention of medical men to this disease and has furnished opportunities for a complete study of the disease and of the effective means of combating it from the therapeutic standpoint. It has been known for a long time that wounds contaminated with soil containing excreta of household animals are most likely to develop tetanus. The organism is constantly present in the dirt of the cities and roads as well as in barn yards and pastures. Wounds that are associated with bruising or crushing of the tissues are especially favorable to the development of tetanus bacillus. The period of incubation is from one to ten days and it has been found that about fifty percent of the cases develop about the sixth or seventh day after infection. The organisms are not often carried far from the point of infection and produce the symptoms entirely by the production of a toxin which ascends the motor nerve sheaths and then reaches the spinal cord. The toxin of tetanus enters into a firm chemical combination with the nerve cells causing irritation resulting in spasmodic contractions of the muscles which are accompanied by considerable pain. From this fact it is evident that it is more difficult to combat the disease by antitoxin when the disease is fully developed. Recent discoveries, however, have given us a method of employing antitoxin in a way that not infrequently saves human life even after the symptoms have all appeared.

The prophylactic treatment of tetanus consists of thorough cleansing of the wound together with the removal of all crushed and devitalized tissues about the wound. Following this fifteen hundred units of tetanus antitoxin should be injected subcutaneously, preferably in or about the region of the injury. This dose should be repeated in a few days if it seems probable that tetanus infection has occurred. When the patient comes under observation after the muscular spasms have developed, active treatment is necessary in order to save life. From three to five thousand units of antitoxin should be injected into the lumbar region of the spinal canal and ten thousand units should be given intravenously. Both the intravenous and the intraspinal injections may be repeated in from twenty-four to forty-eight hours. It is usually advisable to make the intra-

spinous injection under an anæsthetic in order to prevent the possibility of a convulsion during the injection.

A number of severe cases of tetanus have been saved by this treatment and we are convinced of its practical value from personal observation in the cases recently brought to our notice. The treatment by chloral, carbolic acid, magnesium sulphate and a variety of other measures that have been suggested from time to time have proved practically useless in military experience abroad. It would seem that both as a preventive measure and as a curative agent during the fully developed stage of the disease, tetanus antitoxin is by far our most effective therapeutic agent.

G. H. W.

STATE SOCIETY DEPARTMENT.

RALPH BERNSTEIN, M.D., EDITOR.

A Communication to Members of the Homœopathic Medical Society of the State of Pennsylvania:

IT is almost universally conceded by the dominant school of medicine that the application of drugs is abused and they even question the usefulness of medicinal therapeutics, but the most eminent men believe in what they call the modern treatment of disease where they rely on so-called natural methods.

Helping nature to do its work in a natural way, is, indeed, commendable and should be encouraged to the highest degree, but too often the natural forces are sidetracked into an open switch on a downward grade and it takes something more than the natural forces to get them back on the main track to enjoy the comforts of the Pullman. To get them back you must still stick to natural laws to guide you in your method and save as much of the wreckage as possible.

Just think of the extreme violence that used to be in force, the strongest remedies, bleeding and blistering, vomiting and purging in typhoid fever. Now they give baths, careful nursing, etc., but rarely give medicine at all. In the Paris and Vienna schools, drugs have shaken the stoutest faiths, and partly on account of the constant and reproachful object lessons of homœopathy. No regular physician would ever admit

that the Homœopathic infinitesimals could do any good as a direct curative agent, and yet it was certain that homœopaths lost no more of their patients than others. There was but one conclusion to draw, namely, that most drugs had no effect whatever on the disease for which they were administered. The quotation comes from no less an authority than Osler.

They acknowledged at least that we get equal results, and if that is true, why not stick to the simple remedy and devote our time and energies to prove the superiority of our law. This behooves us to perfect more perfect organizations in the counties, states and nation. Are we all willing to do our share in the work? United efforts win most anything and is bound to advance homœopathy so it will leave its footprints on the sands of time for ages to come. Are you affiliated with your local and State Society?

Think it all over brother practitioner and see wherein your duty lies to help in this great work. If you are already a member of our societies, ask your nearest neighbor whether he is, and if not get him to join. I would like to have a personal interview with each member of the State Society and ask him for his co-operation in the work of securing new members. If you think the society is not what it should be, come along anyway and help to make it better. To find fault a man must have ideals and ideals are what we are looking for and we cannot come up to your standard unless you tell us about them.

J. M. HEIMBACH, M.D., *President.*

CHRONIC CYSTITIS.—Smith (Boston) says chronic cystitis in women is never a disease by itself, but is only a symptom of infection higher up or of a general disease. In eighty-seven cases he found non-tubercular renal infection in 61 per cent., renal tuberculosis in 10 per cent.; insufficient emptying of the bladder 7 per cent., infection of the ureter or renal pelvis 7 per cent.; other cases 6 per cent. In every case the urologist should determine the real disease to which chronic cystitis is secondary.—*Abstr. Zentralbl. f. Gyn.* 1914—498.

POTT'S DISEASE.—Undoubtedly surgical measures in Pott's disease shorten the period of disability with a presumption of a rapid cure. But rapid cure, in the exact sense, cannot be obtained by any method of treatment in tuberculous spine disease. In comparison to conservative methods, bone transplantation followed by protective treatment shortens the duration of tuberculous spine disease many months. The early relief afforded patients from discomfort and pain following the operation is striking.—Charles M. Jacors in *The J. A. M. A.*

GLEANINGS

SOME POINTS ON THE ADMINISTRATION OF THYROID EXTRACT.—Until quite recently the generally recommended dosage of thyroid extract was altogether too large, at least, in the majority of cases in which it is to be given. This was doubtless due to the fact that the original dosage as indicated in the various pharmacopeias was based upon experience with this extract in the treatment of athyroidic individuals. It is true that a commonly suggested dose—five grains three or four times a day—is none too much in the major thyroid deficiencies, cretinism and myxedema. Occasionally it may be even larger; but since thyroid is used very frequently in a host of other conditions of functional minor hypothyroidism, it is well to remember that the dose in such cases is very much smaller: 1-10 to $\frac{1}{4}$ grain given three times a day usually suffices.

Small doses of iodine, 1-50 to 1-100 grain given conjointly with thyroid extract frequently make the therapeutic reaction more decided and Osborne, of Yale, has called attention to the fact that seemingly inert thyroid preparations regain their activity when iodine is added. Potassium iodide in small doses also has been suggested as a useful adjuvant to thyroid therapy.

The variation in thyroid products of different manufacturers is quite an important factor. Many articles have been written regarding the importance of the iodine content, and the differences between extracts made from glands taken from sheep of different ages and at different times of the year. In the writer's opinion, the location in which the flocks of sheep have grazed has a great deal to do with the activity of the extracts made from their thyroids, and by far the best preparations are obtained from the organs taken from young sheep which have been pastured near the sea—iodine, it will be remembered is distinctly a seaside product.

Occasionally patients need thyroid extract, but do not seem to tolerate it well. In such cases the whole day's dose, $\frac{1}{2}$ to 1 grain, may be given just before retiring thus obviating some of the inconveniences with the heart and respiration. In these cases Heinrich Stern suggests that arsenic—sodium cacodylate—in small doses may be given conjointly with thyroid to prevent the untoward symptoms.

The indications of thyroid overdosage are obviously an admonition to stop the dosage temporarily. The principal manifestations are increased heart action and perhaps a slight rise of temperature, as well as headache, nausea, irritability, restlessness and occasional pains in the limbs and back.

French authorities recommend the use of one centigram of thyroid extract ($1\frac{1}{2}$ grains) to be given daily in a single dose, but more frequently in divided doses, for one week. The medication is then omitted for a week or even longer, and begun again. Occasionally individuals super-

sensitive to thyroid medication may establish a tolerance to a given dose and after reducing the amount and starting it again, it may be found that they are able to take very much larger doses without any of the previous symptoms of intolerance.

In women, especially those suffering from obesity, who are taking thyroid to facilitate reduction it may be that the addition of corpus luteum to thyroid, say $\frac{1}{2}$ grain of thyroid and 5 grains of corpus luteum three or four times a day will bring about much better results than the thyroid alone. This is particularly true in patients near the menopause.

The use of thyroid extract for children—it is one of the most commonly used organotherapeutic agents in pediatric practice—must be regulated very carefully and unlike alkaloids and mineral drugs, the dosage does not depend upon the body weight or age, of the child, but rather upon its individual susceptibility. The only way to establish proper doses is to give very small doses—1-20 grain—to start with, gradually increasing the amount until a maximum is reached, watching very carefully for the first evidences of intolerance already mentioned.

Under no consideration should thyroid be permitted to be used indiscriminately and without the most careful medical supervision.—*Amer. Medicine.*

ARTERIOSCLEROSIS AS A CELLULAR DISEASE.—Bishop in the *New York Medical Journal* gives a summary of his views of this omnipresent condition. By arteriosclerosis I mean the general disease with which every physician is familiar, but which is very badly named when it is called arteriosclerosis. Like many other conditions it has received its name from a localized condition, just as enteric fever is a synonym for a certain disease that consists of a bacterial invasion of the body by certain specific germs that get into the blood stream, pervade all the organs, and run through a certain cycle of events leading normally to the production of the necessary antitoxins and the recovery of the patient. Enteric fever is a very inadequate name, and was given to the disease because in most cases—if not all—there was an ulceration of the intestinal tract which was seized upon as the supposed seat of the disease, and gave the name to the condition.

In the same way arteriosclerosis, a general disease, from which no part of the body is exempt, involving in a degree all the organs of the body, has received its name because in its well developed stage the arteries are found—when they are observed—to be thickened and conspicuous. Like typhoid fever, arteriosclerosis is a general disease. It is not due to a particular microorganism. It is due to what is known in medicine as a “disturbance of metabolism.” The term, disturbance of metabolism, means very little unless we define it.

In this instance, we define it as the processes of the ultimate products of digestion to the nourishment and maintenance of the cells of the body. That is metabolism.

A disturbance of metabolism is a disturbance of the relation of the ultimate products of digestion to the nourishment and maintenance of the life of the cell.

So the disease, arteriosclerosis, is a disturbance of the relation of

certain material which comes from the food for the maintenance, nourishment, life, and health of the cells of the body. As it involves all cells of the body, it is liable to be more pronounced first in one place and then in another. You all know what a person with advanced arteriosclerosis looks like.

Any one with this condition might also be defined as suffering from cardiovascular renal disease. You know that when such a person comes under observation in a well developed stage of the disease, you are puzzled to know whether you are dealing with a heart condition, whether you are dealing with a kidney condition, or whether you are dealing purely with a bloodvessel condition. You know that the functions of the intestines, liver, and kidneys are involved, and you know that whatever conclusion you reach, someone else will say to the contrary: If you say the person suffers from heart disease, somebody else will say he is suffering from kidney disease; if you say kidney, somebody else will say arterial disease. So it is not possible in these conditions to say just what the nature of the disease is, provided that you insist upon the organic nature of the disease.

This problem is so interesting that it has occupied much of my attention, and I have reached the conclusion that the condition known as arteriosclerosis is really a disease of the cells of the body, and that the involvement of particular organs is a matter of sequence and follows on the general condition.

The cell must digest its nutrient material or else it cannot be nourished, just as the animal must digest its food before it can become available for the nourishment of the cells. Thus we have two digestions: One which is very conspicuous, the digestion of food by the gastrointestinal tract, which is interesting to everybody and is a matter of consciousness. It is only relatively important compared with the other digestion. The other digestion consists of the digestion of food by the individual cell, and that digestion is of vast importance and extremely complicated. The gastrointestinal digestion consists simply in the preparation of food for absorption—of the breaking down of food into the simpler forms so that it may be easily absorbed into the blood stream. The food is not much changed by gastrointestinal digestion. It is rather torn apart into its fundamental divisions. The animal food is broken up into its aminoacids and so forth, but the aminoacids are not broken up and their nature is not changed by the gastrointestinal digestion.

Metabolism is entirely different. In the process of metabolism, the protein molecule is absolutely broken up and its identity is completely lost. That is a very complicated biochemical process and is carried on by a great many organs. It is carried on by the liver, the spleen, the thyroid gland, the suprarenal glands, and kidneys, which have all some metabolic function. The marrow of the bones and the ductless glands have to do with the process of metabolism. Many chemical processes are carried on in the muscles.

As I say, this digestion is vastly more complicated and vastly more important than the gastroenteric digestion because unless metabolism is well carried on, the body is not well nourished and is diseased as a whole.

The question arises then, Why is it that a healthy man develops this

condition which gradually irritates and destroys the cells of the body and leads to the production of connective tissue?

The answer is, that it is because of the disturbance of metabolism.

The nature of this disturbance of metabolism is very obscure, and the hypothesis that I have elaborated is that it is due to a disturbance of the relation of particular proteins to the body cells. In other words, the cells of the body become sensitized to particular proteins.

If you take a guineapig and inject into its blood a small amount of egg albumen, which is a simple form of protein, the pig becomes sensitized to white of egg. If later, you give the pig more white of egg, all the cells react in a manner known as anaphylaxis, and very often the guineapig dies. That is a simple laboratory example of sensitization.

If human beings become sensitized to proteins, which seems to happen from nervous shock, acute food poisoning, some infectious disease, or something else that makes a profound impression on the organism, from that time on the cells of that person's body may be unable to deal with the particular protein in question. Bacteria from a form of suppuration may provide the offending protein.

We do not have to go very far to find examples of food sensitiveness. You all know people who cannot eat fish, strawberries, or this or that kind of food, and are made sick by them.

I saw a gentleman this morning who one Easter when he was a boy, gorged himself with eggs. He ate a great many eggs—I don't know how many—and was made very ill, so that he had nausea, vomiting, and fever. He was confined to his bed and made a slow recovery. It was a case of acute food poisoning, from eating a great number of eggs. Following that, every few days he would be sick again. Finally it was discovered that if he ate eggs it made him absolutely ill. He stopped eating eggs or anything with eggs and got on well. For thirty years the man could not eat eggs or any article of food with eggs in it because that poisoning had caused him to be sensitive to eggs.

I know a doctor's child who is so sensitive to fish that if you conceal a piece of fish in a potato, and the child eats it, he is sick before he leaves the table. We can parallel such examples numberless times. I have heard of a child who was so sensitive to eggs that his eyes would water if eggs were opened in the same room.

Unfortunately—I say unfortunately because I mean it—food poisoning is not by any means always accompanied by disagreeable symptoms. In fact, food poisoning may be accompanied by agreeable symptoms, just like any other poisoning. If a person is slowly poisoned by arsenic, it gives him a sense of well being until it is withdrawn. The same is true of other poisons. If a person is poisoned by meat, the withdrawal of meat is accompanied by a sense of prostration, and the restoration of the meat by stimulation. If the person is not poisoned by the meat, it can be withdrawn without any particular discomfort.

The natural history of the production of arteriosclerosis is, I believe, as follows: The person goes through a period of great nervous shock or strain, some very acute illness, or some acute food poisoning, and this produces a change in the relation of the body cells to the customary food proteins. The person may be sensitized to meat, fish, eggs, or other pro-

teins. When a person has been sensitized to food protein and goes on eating that food, the cells of the body are irritated and some of them destroyed, and the organs become defective and are not able to do their work properly. When the kidneys become markedly sclerotic they do not function normally and Nature attempts to make them function better by a rise of blood pressure. This rise of blood pressure leads to hypertrophy of the heart. It leads to thickening of the bloodvessels and that creates a vicious circle. The high blood pressure damages the bloodvessels and the kidneys are further and further damaged until finally we get the picture of cardiovascular renal disease.

Such a person coming under medical observation is ordinarily said to be suffering from one or other of several conditions—either heart disease, bloodvessel disease, or kidney disease. In reality, it is all one thing. It is cardiovascular renal disease to which for convenience we have given the name arteriosclerosis.

The cardinal symptoms of arteriosclerosis are hard to define because the disease is not a symptomal disease. Nature provides a margin of safety in the heart, bloodvessels, and kidneys that is very wide. So the heart is very badly damaged, the kidneys are very defective, and the bloodvessels are greatly thickened before nature complains. Thus the person with arteriosclerosis has no symptoms in the earlier stages of the disease. He has certain objective signs which may be discovered by examination.

As far as I know, the first symptom of arteriosclerosis is pain in the chest on exertion after eating. The quickest way to relieve this pain is by treating the heart. Nitroglycerin properly administered acts almost like magic in this type of cardiac pain.

This disease is not found in any of the textbooks, but I believe that a clear conception of its nature as a general disease that attacks so many people is of great importance. I know that it is of great importance to me in my work, which is limited to cardiovascular renal disease. When I treated kidneys, I never helped my patient. When I treated the heart, I never helped my patient. When I tried to soften the arteries I did my patient a good deal of harm. But since I have treated the body as a whole, and regarded the sufferers as victims of disturbed metabolism, I am sure the hygienic measures that I have advised have helped a great many of them.

Thus it would seem that the disease called arteriosclerosis, which is really cardiovascular renal disease, is primarily due to a disturbance of metabolism extending over a long period of time. This disturbance of metabolism consists in a sensitization of the cells of the body to particular proteins ordinarily found in food. Meat proteins are most often to blame. Fish proteins are sometimes to blame. Egg proteins are also harmful to a good many people. This process is subsymptomal for five, ten, or fifteen years until such time as a sufficient number of cells have been destroyed to impair the function of the organs. This gives rise to symptoms and the disease is discovered.

The remedy in this disease is to be found in the discovery and removal from the dietary of the offending proteins, meat being most common, and in the correction of metabolism by physical methods, particularly exercise. Exercise is the greatest stimulant of metabolism there is. Exercise makes

the patient breathe deeper, it helps the digestion of food, and stimulates the kidneys. It is the great stimulant of metabolism. Exercise has an important place in the treatment of arteriosclerosis. First diet and then exercise. The third important thing is attention to the intestinal tract.

We cannot throw overboard all that has been said of late years as to autointoxication, intestinal stasis, and all these things, but there is a remedy that is the best for dealing with the intestinal condition. Serial doses of castor oil, out-of-door exercise, and diet from which the offending proteins have been removed intelligently, so that there is no protein starvation, lead to a condition of improvement that makes further attention to the question of autointoxication unnecessary.

This is the cellular theory of arteriosclerosis, with the hygienic treatment that logically follows its adoption.

In addition to this, we have to treat the sick person. The general plan of treatment—the diet, out-of-door exercise, and so on—is the underlying basis, but you have to treat the individual. When there is cardiac pain, attend to that.

The dilated heart, provided that there are symptoms of heart failure, must be taken care of with digitalis. The kidneys do not require any direct regimen. The psychical side of these persons is very important—they need reassurance.

CASTOR OIL.—Is recommended in the *Indian Medical Gazette* as an admirable dressing for abrasions, slight burns, small wounds, and the like. Sometimes applications of tincture of iodine precede. It is even believed to be antiseptic.—*Med standard.*

LIME IN THE EYE.—Do not stop to remove the lime, but quickly drop into the eye a little water to which has been added an equal quantity of vinegar or lemon juice. Do not wait to reach a surgeon, otherwise the eye may be seriously damaged. The lime must be neutralized at once. Even then the ulcers will likely be several days healing.—*Health and Temperance.*

ANALYSIS OF 400 CASES OF LOBAR PNEUMONIA.—By J. G. Gross.—Lobar pneumonia is more fatal than it was formerly. Hospital records give less favorable results than those obtained from private practice, because among hospital patients there is less intelligent cooperation, there is a greater incidence of acute and chronic alcoholism, and the patients are less well nourished in general. Not only does the frequency of the disease vary in different seasons and in the corresponding seasons in different years, but the mortality is much greater at some times than at others from factors not yet understood. The mortality in patients under five years of age is about four times as great as in those between five and ten years old, which period marks the lowest mortality of all. After this each decade of age shows an increase in mortality over the preceding. In 125 cases in which the exact date of onset was known, it was found that there was no regularity in the day on which the crisis occurred, although it occurred by the tenth day in eighty per cent. In the remaining twenty per cent. it occurred on some later day up to one month after onset. In forty-six per cent. of the cases the first symptom was a chill, fourteen per

cent. began with pain in the chest, side or back and in twelve per cent. cough was the initial symptom. In sixty-three per cent. of 369 cases both albumin and casts were present in the urine. In 333 cases the site of the lesion was determined. The right upper lobe was affected in nine per cent. the right lower in twenty-nine per cent., the right middle in two per cent., the left upper in six, and the left lower in twenty-six per cent. With leucocyte counts below 10,000, the death rate was high; between 10,000 and 15,000 and between 20,000 and 25,000 the mortality was average, and between 15,000 and 20,000 there was an unexplained fall in the death rate. Counts above 25,000 gave a very low mortality. With counts up to 20,000 the proportion or terminations by crisis and lysis was fairly uniform between 20,000 and 25,000 the two terminations were about equal, and counts from 25,000 to 30,000 showed a preponderance of one to two in favor of lysis.—*Jour. A. M. A.*

PROGNOSIS IN CARDIOVASCULAR DISEASE.—By Thomas E. Satterthwaite. —In valvular disease the state of the vessels has an important bearing on the prognosis. The most important points are the character of the disease, its location, variety, extent, duration, and complications; the degree of myocardial implication; associated constitutional disease; patient's age, sex, status in life, habits, occupation. Only partial recovery can be looked for in organic cases, although the function may be restored almost completely. In infants under one year the outlook is particularly unfavorable in any form of heart disease. Women apart from the special risk in pregnancy and parturition have a better expectation of life. In men the prognosis is most unfavorable where the occupation calls for physical strain or exposure to inclement weather. The outlook is more favorable in mitral insufficiency than in any other form of valvular disease and it is not incompatible with a long life. Mitral obstruction is more serious and seems to be more liable to the occurrence of embolism. The danger in aortic insufficiency depends on the presence or absence of arteriosclerosis or angina. Pulmonary valve disease is grave when congenital, while tricuspid obstructions are the most dangerous of all valvular diseases and the patients seldom live long. The intensity of a cardiac murmur is not a measure of the gravity or the extent of the disease process. Systolic murmurs are of less grave significance than diastolic. Heart cases are benefited by a suitable climate and the elevation should not be over 1,500 feet. Rest and avoidance of overdosing with drugs of the digitalis group are of great importance, while high blood pressure is always a bad sign even in the absence of interstitial nephritis. The diet should be carefully regulated and there should be no mental or physical strain and no over-eating or overdrinking. Ascites is always an unfavorable sign, while kidney involvement usually hastens the end.—*Medical Record.*

ROENTGEN DIAGNOSIS OF GASTRIC CANCER.—By R. D. Carman (*American Journal of the Medical Sciences.*)—The records of the Mayo clinic show that in a large series of cases confirmed by operation, sixty-seven per cent. of the patients had palpable tumors and 53.3 per cent. had food remnants. In other words, thirty-three per cent. had no palpable tumors and 46.7 per cent. no food remnants. It is in the cases which show neither tumor

nor food remnants that the Rontgen rays have their greatest field of usefulness, and it is stated that in this clinic ninety-five per cent. of gastric carcinomas are discovered by this means. Since nearly one third of all cancers occur in the stomach, and since early recognition and operation alone afford a chance of cure, any measure which will increase the number of correct and early diagnoses is of the highest importance. The clinical data should always be known to the roentgenologist to stimulate his search or restrain the interpretation of his findings, and the diagnosis should be compatible with all findings. Occasionally the diagnosis can be made only through their correlation. The roentgenological signs in the order of their relative importance are: Filling defects, occasioned by the projection of the tumor into the barium filled lumen of the stomach producing irregularity of contour; alterations of pyloric function; perversion of peristalsis; altered motility; lessened flexibility; lessened mobility; diminished size; displacement. These are considered by the author in turn, with considerable attention to filling defects. The pictures produced by the different forms of cancer, fungous, scirrhus, mucoid, and carcinomatous ulcer are discussed. The experience of the examiner and his ability to see and interpret slight departures from the normal have some importance in the diagnosis of early cancers. One no larger than a cherry has been found and the discovery of smaller ones is possible. The cases reported illustrate the marked degree to which the indications and their combinations vary.

CORRECTION OF DEPRESSED FRACTURES OF THE NOSE BY TRANSPLANT OF CARTILAGE.—E. H. Beckman (*Surg., Gynec. and Obst.*, XXI, 6, 694.)—The author's operation, the technique of which is given below, is done with the view of correcting the depressed and lateral displacement of the nasal bones in cases of fracture with deformity due to lateral displacement.

He points out the facts that it is not necessary to use the transplants at once but they may be kept as many as five days; that the preservation of the perichondrium is not necessary for the success of the transplant.

The transplants were taken from the 7th rib at its sternal junction, this being the broadest and making it possible to leave a connection with the rib and sternum after removal of part of cartilage for transplant.

TECHNIQUE.

If in bad position, refracture nasal bones and apply splint for five to six days.

2. When nasal mucous membrane is intact make transplant.
3. Use wax model of defect as a guide to shaping transplant.
4. Incision one-fourth of an inch in length transversely through skin on nose between the two inner canthi.
5. With elevator separate skin and sub cutaneous tissue from bone to almost the tip. Do not elevate laterally.
6. Put transplant in place and suture at upper end to prevent upward displacement of transplant.
7. Suture skin incision with horsehair.

J. G. SPACKMAN.

LESIONS OF THE LUMBO-SACRO ILLAC REGION.—L. H. Langnecker (*J. Am. M. Ass.* LXV, 22, 1866.)—The author points out the fact that lesions of this region are the most frequent industrial and occupational diseases. That variations from the normal anatomical structure and relationship are frequent.

He has grouped the lesions into 3 classes. 1. Traumatic with and without anatomic variations. 2. Static. 3. Toxic.

The traumatic group are divided into acute and chronic. The acute type being the result of direct or indirect violence, as muscular action and would occur in heavy lifting etc. The result may be a tearing of the ligaments or a slip of the sacral articulations.

The symptoms and physical findings are—: Pain worse on all motions. May be referred to buttocks and down leg. Forward stoop, list to one side and leg flexed at hip. Obliteration of the normal lumbar curve and slight bony prominence over the seat of injury.

The chronic type is the result of relaxed ligaments due to repeated strain or impingement of the broad transverse process of the 5th lumbar vertebra on the ilium.

There is local and referred pain. Unilateral deformity with slight forward bending. All movements are restricted.

The static group are due to faulty posture. The symptoms are gradual in onset. Pain worse on standing, lordosis, and backache are the most constant. There is abnormal mobility of the joint.

The toxic group represent lesions that are the result of either local or general infections. In acute cases the joint is swollen and tender. Severe pain on all motion. The chronic type is marked by dull pain which may be referred. It is relieved by posture. Forward bending and list to one side are common. Lumbar curve obliterated and all movements are restricted.

J. G. SPACKMAN.

PERINEPHRITIC ABSCESES.—Wm. F. Braasch (*Surg., Gynec. and Obst.* 1915, XXI, 631.)—Braasch divides perinephritic abscesses into two groups.

(1.) True; those originating from a primary focus in the kidney. (2.) Subdiaphragmatic or those infections which are caused by neighboring foci in tissues other than the kidney. Retroperitoneal abscesses are also classed under this heading.

The following were found to be the etiological factors in order of frequency in a series of 67 cases of true perinephritic abscess. 1. Pyonephrosis. 2. Renal tuberculosis. 3. Nephrolithiasis. 4. Cortical abscess. 5. Traumatic rupture.

Of these, 19 cases belong to the first class. Of these 3 were long standing infected hydronephrosis. Nephrectomy was done in 10. Drainage and subsequent nephrectomy in 2. Drainage rendered subsequent nephrectomy much more difficult.

Class 2 comprised 10 cases. Prognosis poor. The abscess the result of a secondary mixed infection. 6 died within a few months after operation.

Class 3 contained 11 cases. The condition was secondary to a cortical abscess which was primarily due to stone. Continuous severe pain over

kidney was the most prominent symptom. Nephrectomy in 6. Nephrolithotomy and drainage in 5. The cases in which the abscess was directly connected with the cortical abscess healed by drainage with nephrectomy.

Cortical abscess 12 cases. There was pus in the urine of all except 2 which had perinephritic abscess communicating directly with the corticle one. 3 were cured by drainage. Recurrence 1. Nephrectomy done in cases of multiple cortical abscess.

Traumatic rupture 4. The abscess appeared from 2 to 3 weeks after rupture. Nephrectomy 3 cases. Drainage 1.

Of the 18 cases of subdiaphragmatic or retroperitoneal 2 had spinal involvement. Psoas abscess 1. Pelvic infection 1. of the remainder no data could be had as to the cause of infection.

The diagnostic methods employed were.

1. Repeated analysis of urine.
2. Bacteriologic examination of urine from the pelvis of both kidneys.
3. Renal function tests. Phenol-sulphone-pthalein.
4. X-Rays of urinary tract and thorax.

Conclusions: In large fluctuating abscesses with poor physical condition, drainage. If much renal involvement, drainage and nephrectomy if possible.

J. G. SPACKMAN.

THE END-RESULTS OF SEVENTY CASES OF RENAL TUBERCULOSIS TREATED BY NEPHRECTOMY.—E. G. Crabtree and H. Cabot (*Surg., Gynec. and Obst.* 1915, XXI, 669.)—Cabot in the introduction points out the fact that early operation is not attended with any better ultimate result than those of a more advanced stage. He believes that the danger of early operation is due to the lack of resistance in the patient. The cases which come to operation at a later stage have apparently developed a partial immunity.

The average length of time since operation was 5.6 years.

Sex. Equally divided. Women present a larger number of cures than men.

Age. Average was 34.9 years. Extremes 14 and 65.

Side Right 40. Left 27.

Family History. Definite history of exposure in 10 cases.

Negative 38. Not recorded 22.

Duration of Symptoms. Average $2\frac{1}{2}$ years before operation.

Shortest period 3 weeks. Longest 10 years.

Presenting Symptom. i. e., Those first noticed by the patient. Most common by far was bladder irritability. 2. Pain on affected side. The remainder in order of frequency were loss of weight; pain in penis on urination; haematuria; chills and fever; colicky pain; acute retention from blood and pus.

THE CLINICAL SIGNS.

Temperature. In 46 cases the temperature fluctuated between normal and 100. Two cases 102-104. Normal temperature 20 cases.

Urine. Slight traces of albumin 61. Negative 2. No urinalysis 7.

Pus and blood present in 60. History of haematuria 12. Macroscopic blood 10.

Other Tuberculous Lesions. Lung involvement 13. Died of this disease 6. Arrested lung involvement 1.

Tuberculosis of Epididymus. Previous to operation 3. Unilateral 2. Bi-lateral 1.

Tuberculosis of Prostate. Diagnosis made in 1 case. Negative rectal examinations 14. Records insufficient as to remainder.

Tubercular Adenitis. Two cases in which it was present at time of operation.

Tuberculous Stricture of Urethra. Present in 1. of the total number of cases 27 per cent. had tubercular lesions other than the kidney, ureter and bladder.

Operation. All nephrectomies with partial ureterectomy. No attempt was made to sterilize the ureter.

The immediate mortality, i. e., those which died as the result of the operation and while in the hospital under observation 4 cases, making 3.3 per cent. The causes of death in late mortality in order of frequency were 1. General tuberculosis. 2. Lung tuberculosis. 3. Tubercular meningitis. 4. Miliary tuberculosis.

Wounds. Better result from suture with drainage.

New Lesions after Operation. In the order of frequency were epididymitis, pulmonary, prostate, vesicle, larynx, remaining kidney, and urethra. The most prominent symptom after operation was frequency which lasted 2 years or more.

Sixty per cent of the series can be considered cured. The remainder still retain some evidence of the disease.

J. G. SPACKMAN.

DIFFERENTIAL DIAGNOSIS OF CHRONIC APPENDICITIS.—Bischoff (Dusseldorf) says it is often difficult to determine in disease of the right adnexa whether the appendix is also affected. Some years ago Basteds proposed to distend the colon by means of a rectal tube. If the appendix is affected the patient experiences pain in the region of the appendix, sometimes radiating to the navel. With normal appendix only a sensation of fulness is experienced, occasionally also some sensations between the navel and symphysis. Moderate distention only is necessary. Bischoff has tested this procedure in thirty-seven cases. In twenty three positive cases chronic appendicitis existed, with adhesions, constrictions, stenosis etc. In fourteen negative cases the appendix was not affected. In six cases of adnexal disease the non-involvement of the appendix could be demonstrated. Even in pyosalpinx with intestinal adhesions, the case responded negatively to the test and the appendix was found to be normal. One case of apparent chronic appendicitis, reacting negatively, cholelithiasis was found. The method is also of value in differentiating between appendicitis and neuralgia.—*Monatsschr. f. Geb. u. Gyn.* Vol. 40—398.

THEODORE J. GRAMM, M.D.

THE CORPUS LUTEUM.—Seitz, Wintz, and Frigerthut have made an

extensive study of the corpus luteum and have reached the following conclusions: Menstruation is dependent upon the function of the corpus luteum. It contains two bodies, one is the luteolipoid which has haemostatic properties and if given subcutaneously before or during the menses it diminishes and shortens the period of bleeding. The second body is lipamin, a lipoproteid and in fact a lecithen albumin. In animal experiments it favors the growth of the genitalia, and if given subcutaneously in amenorrhoea it brings on menstruation. Luteolipoid and lipamin are antagonistic and regulate the course of menstruation. Therapeutically luteolipoid acts admirably in the hemorrhages at puberty and in menorrhagia without organic lesions. In climacteric hemorrhages it only acts when coagulation is delayed. It is without effect in hemorrhages of inflammatory origin. In myoma there is even a transient increase of hemorrhage. In dysmenorrhoea with free bleeding, luteolipoid has a favorable action upon the pains.

Lipamin, when used sufficiently long, may induce menstruation in amenorrhoea. It is warranted to attempt to remove hypoplasia of the genitalia by repeated injections of lipamin. In dysmenorrhoea with scanty bleeding, lipamin given hypodermically before the period, appears to ameliorate and remove the pain.—*Abstr. Zentralbl f. Gyn.* 1914,—1431.

THEODORE J. GRAMM, M.D.

THE DANGERS OF THE TAMPONADE IN OBSTETRIC AND GYNECOLOGICAL PRACTICE.—Weber (Munich) has studied this subject from its bacteriological side. In eighty-two cases of uterine atony treated with the intra-uterine tampon 6.5 per cent. more became sick than after other methods of treatment. In placenta praevia the results were especially bad if any other manipulation preceded the tamponade. This was particularly true if the latter procedure was performed in the private house. The bacteriological examination showed that if the gauze remained for ten hours within the uterine cavity the germ content was enormous. If it remained only from four to seven hours the germs were much fewer; and if the uterine cavity was previously sterile as in vaginal caesarian section the tampon was sterile after remaining seven hours. If however other manipulations have been used before, the tampon contained numerous germs even after four or five hours. In extra peritoneal caesarian section, the absence of germs continued not longer than from two to six hours. The same results were found after abortion. No material difference was found when the gauze was impregnated with substances such as iodoform. The bactericidal powers of gauze seemed to be most increased after saturation with 5 per cent. hydrogen peroxid.—*Abstr. Zentralbl f. Gyn.* 1914,—416.

THEODORE J. GRAMM, M.D.

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FIFTY-SECOND SESSION

THE EARLY RECOGNITION OF CANCER OF THE URINARY BLADDER.

BY

LEON T. ASHCRAFT, M.D., F.A.C.S., PHILADELPHIA, PA.

IN the treatment of malignant disease of any part of the body, the outcome depends upon its early recognition. Especially is this true in cancer of the urinary bladder, in which the results of all forms of treatment have been of the most discouraging character.

All tumors of the bladder may be regarded as potentially malignant. Even papilloma, the most characteristic of the so-called benign vesical growths, and also the most amenable to treatment, has a marked tendency to become cancerous; and out-spoken carcinoma constitutes about one-half of all the tumors of the bladder.

When malignancy is once established, the prognosis is most discouraging; and it is unfortunately a fact that the majority of patients do not seek medical advice until the diagnosis is only too apparent. If the disease could be discovered while still in the so-called pre-cancerous stage, the chances for cure would

be greatly increased. For this reason, effort should be directed to the discovery of symptoms and signs that will enable the surgeon to recognize carcinoma of the bladder in its incipency; and the aim of this paper, which is a purely clinical one, is to call attention to some of the danger signals not hitherto referred to or not sufficiently emphasized in medical literature. The deductions of the writer are derived from a not inconsiderable experience with cases of tumor of the urinary bladder, covering a period of several years. These include, in all, over forty cases of his own, and many observed in the practice of other men.

By far the most important early symptom is a painless hematuria, which may exist long before any other more acute symptom appears, occurring daily, or at intervals of as long as several months. It may even disappear completely for a year or two before starting again, as happened in one of my cases. Such a painless hematuria should lead to a careful examination of the bladder for other evidences of cancer.

An examination of my case histories has shown that frequent and painful micturition is the next most common early symptom of bladder carcinoma after painless hematuria. It is true that in some of these cases this symptom might be accounted for by the presence of venereal or obstructive disease, but not so in all. In some, there were evidences of changes in the kidney; but, as suggested in previous papers,* such changes in the kidney may predispose to tumor formation in the urinary bladder.

Pain is a third early symptom of this condition. It is usually referred to the urethra, suprapubic region, the sciatic nerve, to the perineum, when the tumor encroaches upon the orifice of the ureter, and, to the ureter and kidney of the side affected.

The condition of the urine affords an important sign of the existence of malignant disease of the bladder. Every case presenting albumin, blood or pus in the urine microscopically should immediately be subjected to a cystoscopic examination, provided that the patient is not too acutely ill. Later the urine possesses a peculiar odor, which is most offensive and penetrating resembling that of dead fish. If allowed to stand, the urine

*The Value of the D'Arsonval Current in the Treatment of Benign and Malignant Tumors of the Urinary Bladder through the Operating Cystoscope. *Journal of Surgery, Gynecology and Obstetrics*, November, 1913.

Cases of Bladder Tumor. *Hahnemannian Monthly*, February, 1910.

shows a heavy, thick sediment, which is more or less adherent to the beaker.

Having been warned by these first signals of impending

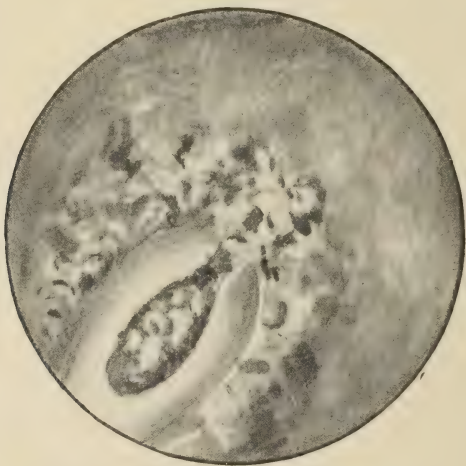


MULTIPLE CARCINOMA OF BLADDER, AREAS OF LEUKOPLAKIA.

malignancy, what shall one do? In pre-cystoscopic days, the introduction of the finger into the rectum or vagina would sometimes enable the surgeon to outline a tumor that would be clinically suggestive of carcinoma; but today, the cystoscope is pre-eminently the means by which one approaches the

diagnosis of cancer of the bladder. I firmly believe that if this instrument were employed as routinely as are the stethoscope, the ophthalmoscope and other instruments of precision, such pathological conditions of the bladder could be discovered at a much earlier stage than is usual at the present time.

Now, having resorted to the use of the cystoscope, what conditions should one look for? Most tumors are located around the ureteral orifices, in the region of the trigone; although some few may be found high up on the bladder wall. Not infrequently, also, the lesions are scattered over various areas of the vesical wall—the so-called “kiss” cancers, or contact cancers. While most benign tumors of the bladder are



REMOVING A SPECIMEN FOR DIAGNOSIS.

frankly non-malignant, such is by no means always the rule. Some of the most innocent-appearing tumors that I have seen, turned out to be malignant; and conversely, some that filled up a large area of the bladder wall, presenting all the appearances of malignancy, disappeared under treatment with the D'Arsonval current. Usually, however, pedicled and villous tumors are more or less benign; while those that are sessile may be regarded as carcinomatous. A hard, dense, tumor, giving a resistant feeling to the beak of the cystoscope, is commonly malignant, as are also tumors encrusted with phosphatic deposits, those showing ulceration, and those close to the prostate. Hardness, and rigidity of the bladder wall, of the sphincter vesicæ, and of the prostate, are all suggestive of malignancy.

Some few presented a marked prominence of the inter-ureteral ligament. Unevenness of the bladder interior and the presence of leukoplakiæ are further evidences of malignant disease. On the contrary, tumors bordering the sphincter vesicæ, having long antennæ and a very red base, as many as four or five being present within a distance of two or three centimeters, and standing out prominently from the muscle under forced bladder distention are frankly innocent.

Other aids to the diagnosis are an estimation of the capacity of the bladder and the examination of pieces of tumor tissue under the microscope. Inability to inject more than four or five ounces of fluid without causing pain is an evidence of inflammatory contraction of the bladder, which is a part of the symptom complex of vesical cancer. Concerning the diagnostic value of the microscopic examination of shreds of tissue passed with the urine or pieces removed for that purpose, opinions differ. If any of these portions of the growth show evidences of malignancy, the diagnosis is established; but, on the other hand, a failure to exhibit such evidences does not disprove the existence of cancer. In the first place, both benign and malignant growths may be present in the same bladder; and in the second, it is quite possible to remove parts of the tumor that do not show malignancy, leaving untouched portions that do exhibit the characteristic changes. In the third place, such changes may exist, and yet be so slight as often to go unrecognized. Buerger,* in a recent study of one hundred and thirteen neoplasms of the bladder, discovered certain morphological changes to be regularly present in the cells of all these growths that either possessed or had acquired malignant traits. Although these alterations are frequently of such a character as to be scarcely noticeable, he considers that they form absolutely dependable criteria on which to base a pathological diagnosis. They are always manifested first in portions of the growth easily reached—that is, in the epithelium, not far from the surface; so that pieces of tumor containing them may readily be removed for examination. It is, therefore, important that the profession should be on the lookout for these very early changes, and learn to recognize them when present. They are as follows:

“Cells manifesting irregularities in size and shape; nuclei

*The Pathological Diagnosis of Tumors of the Bladder, with Particular reference to Papilloma and Carcinoma. *Surgery, Gynecology and Obstetrics*, August, 1915.

rich in chromatin, deeply staining, and of bizarre shape; cells with atypical mitoses; giant cells and multinucleated cells." Also, "a disturbed relationship of the cells to each other," "a loss of the typical palisade arrangement of the cells," "the presence of long fusiform or compressed types of cells," "the existence of evidences of infiltration of the stroma and penetration of the basal membrane," "the presence of cells in the capillaries," and, "the occurrence of epithelial cells in the sub-mucosa coats of the vesical wall."

The most important sign in the diagnosis of cancer of the urinary bladder, however, is based upon the marked tendency exhibited by bladder cancer to show an increase in the amount of pain, and of the associated symptoms of cystitis and constitutional absorption, following any resort to instrumentation. It may be recalled that in 1913, I submitted to the profession an article* in which I claimed to have been a pioneer in this method of treatment, which is similar to that used by Beer with the current Oudin. Cancers are relieved—at least, not excited—by sedation, and are proliferated or increased in activity by irritation; and the irritation resulting from this treatment is frequently quite marked. When, therefore any attempts at fulguration, desiccation or dehydration by means of the D'Arsonval current increases permanently the hematuria, pain and other symptoms or accelerates the growth of the tumor, the latter should be looked upon as malignant. If, on the other hand, improvement in the symptoms and in the rate of growth is shown, the mass is to be considered as innocent.

Another point in the differential diagnosis depends upon the fact that there are said to be no sensory nerve filaments in malignant growths. Although fulguration of papillomata causes marked pain, there is an absence of severe pain during this procedure in the case of malignant tumors, even though manipulation of the urethra and bladder may be moderately painful.

Again, a difference in the reaction following fulguration in malignant and in innocent neoplasms may be noted. Of course, a rise in temperature may occur after instrumentation of any kind, even catheterization; but, when a chill and fever follow the treatment of bladder tumors by fulguration, not once only, but every time the treatment is given, and when marked con-

*"Value of the D'Arsonval Current in the Treatment of Benign and Malignant Tumors of the Urinary Bladder through the Operating Cystoscope."

stitutional symptoms prevail, this fact should be considered as a strong evidence in favor of malignancy.

The growth of a tumor after the use of the D'Arsonval current must be differentiated from its growth following the employment of the current Oudin. Both these currents are apt to increase the growth of cancer. The D'Arsonval current, however, does not increase the size of non-malignant tumors; while the Oudin current, in many instances, merely furnishes sufficient heat and moisture to propagate their growth, and does not desiccate them. This I was able to show in the article I have mentioned, in which I described a series of experiments showing the effect of the two currents on pieces of raw beef-steak and liver. Consequently, the clinical differentiation by means of the electrical current must be made from the standpoint of the use of the D'Arsonval. If one employs only the current Oudin and finds that the growth tends to increase in size, one should not be led too hastily into believing that the tumor is cancerous; for the contrary may be the case. The D'Arsonval current should be tried before reaching a conclusion. Recurrence *in situ* following desiccation or surgical intervention must be regarded as suspicious of malignancy.

DISCUSSION.

DR. W. C. HUNSICKER, Philadelphia: I have had some little experience in this line, and can bear out Dr. Ashcraft's statements, so far as the value of cystoscopy is concerned. I would also emphasize some of the important points in the clinical diagnosis of cancer, especially the one he mentioned in regard to the peculiar and characteristic odor of the urine. Sometimes, preliminary to cystoscopy, we have to catheterize the bladder and cleanse the cavity, so as to be able to see the interior; and the moment the urine commences to flow from the catheter, its odor affords almost certain proof of the existence of a cancerous growth.

In regard to the value of the d'Arsonval and Oudin currents, I would say that I have had some experience of the palliation obtained from the use of the Oudin current with the new Geiger coil. I think that Dr. Ashcraft has had some experience with that coil also, and I should like to know what he considers its value to be. Dr. Frank assures me that it gives the purest Oudin current that he can get.

I had two very interesting cases of carcinoma of the bladder

in which I made the diagnosis. They were treated by Dr. Benson, of Philadelphia, who is the one man in that section who has sufficient radium to be able to treat these conditions scientifically and properly. While the effect of this treatment with radium in a gold capsule inserted into the bladder seemed to be to relieve temporarily some of the annoying urinary symptoms, yet there was a tremendous amount of physical depression following each application. That could not be combated, and the patients seemed to get much worse generally following the application. Moreover, the treatment did not retard the gradual progress of the systemic absorption. In fact, in my somewhat limited experience with the application of high-frequency currents to the bladder, I have found that this has not retarded the ultimate end of the patient, although it has relieved—and materially relieved—the urinary condition. Septic absorption has gone on as steadily and rapidly as it would under ordinary conditions.

DR. ASHCRAFT: I want to repeat that my experience favors the d'Arsonval current. I have had no experience with the Geiger coil.

THE CURE OF GONORRHOEA FROM THE LABORATORY STANDPOINT.

BY

GEO. A. HOPP, M.D.

Assistant Pathologist, Hahnemann Hospital and College, Philadelphia, Pa.

It is safe to say, that fifty percent of female pelvic infections and most of the sterility in both sexes, and thirty percent of blindness, is due to gonorrhœa, and all, because the husband who having had gonorrhœa, believed himself cured when he was not. He was never told that he must be absolutely free from all infection before marriage; nor, was he ever thoroughly and scientifically examined and pronounced free to marry. Many of the dispensary and private cases discharge themselves, before they are given an examination to ascertain that they are free from infection.

When a man contracts the disease, he usually consults the druggist, who dispenses over the counter; or, some layman, who gives him a good prescription which will cause the discharge to cease and the urine to become clear. On the other hand, he may consult a general practitioner, who will give him

internal medicine and local treatments, to cause a cessation of the discharge with a clear urine, or perhaps, urine containing a few shreds. With these findings, he is discharged cured or he may discharge himself.

A cessation of an obvious urethral discharge simply means, that the main thoroughfare is clear, but is no evidence that all the periurethral ducts and glands are uninfected. In a very large percentage of all cases of gonorrhœal infection of the urethra, the term cured gonorrhœa, is most improperly and incorrectly applied. If uncured gonorrhœa cases are left to wander around, we have what is known as gonorrhœal carriers, analogous to typhoid carriers who are a menace to the public.

It should be the duty of every general practitioner, or in the dispensary practice to inform the patients that if they should marry before a thorough scientific examination is made, they will run the risk of infecting some one else. If the practitioner fails to give such advice, and discharges his cases without a scientific examination, he can consider himself responsible for much of the pelvic trouble in young married women and of the blindness in children.

Gonorrhœa to the laity, is looked upon as a disease similar to measles or scarlet fever in children;—that they must contract it. As the saying is, "you are no man until you have had gonorrhœa." We know otherwise. To stop a disease spreading we must stop the cause of the disease. Several states are now enforcing laws of prevention. December 1914, New York City made a provision in the Sanitary Code, which applies to venereal diseases, known as Section 88, and reads as follows:

Sec. 88. "Duty of superintendents of hospitals and dispensaries and of physicians to report cases of venereal diseases. It shall be the duty of the manager, superintendent, or person in charge, of any correctional institution and of every public or private hospital, dispensary, clinic, asylum or charitable institution in the City of New York to promptly report to the Department of Health, the name or initials, together with sex, age, marital state and address of every occupant or inmate thereof, or person treated therein, affected with syphilis or gonorrhœa; and it shall also be the duty of every physician in the said city to promptly make a similar report to the Department of Health relative to any person found by such physician to be affected with syphilis or gonorrhœa. All reports made in

accordance with the provision of this section and all records of clinical or laboratory examinations indicating the presence of syphilis and gonorrhœa, shall be regarded as confidential and *shall not* be open to inspection by the public or by any person, other than the official custodian of reports or records in the Department of Health, the Commissioner of Health, and such other persons as may be authorized by law to inspect such reports or records, nor shall the custodian of any such report or records, the said commissioner of Health, or any such other person divulge any part of any such report or records so as to disclose the identity of the person to whom it relates."

March 25, 1915, Vermont enacted a law which contains the following provisions

"A person who, knowing himself to be infected with gonorrhœa or syphilis marries, shall be fined not more than \$500 or imprisoned in the house of correction for not more than two years. A person who, while infected with gonorrhœa, or syphilis, has sexual intercourse, shall be fined not more than \$500 or imprisoned in the house of correction for not more than one year. A physician who knows or has reason to believe that a person whom he treats or prescribes for, is infected with either gonorrhœa or syphilis, shall immediately report the name, age and sex of such person to the secretary of the State Board of Health, for which report he shall receive the sum of twenty-five cents to be paid by the State Board of Health. A physician who fails to make such report shall be fined not more than \$200."

With such a proviso in other states, it should be the duty of every physician in Pennsylvania to have the legislature of Pennsylvania to enforce somewhat similar laws to protect and stamp out such venereal disease carriers, with the addition, that all cases must pass a thorough laboratory examination before they are pronounced cured.

The question arises, "How shall we know when gonorrhœa in the male is cured?" To that I would say, by a thorough laboratory examination such as, microscopic examination of a discharge produced by instillation of silver nitrate. Microscopic examination of urine passed after prostatic massage and the first urine voided in the morning. Lastly, the complement fixation test, which is somewhat like the Wassermann test for syphilis, in as much as the blood is taken in the same way and the technique of the test is similar.

The complement fixation test has detected a large percentage of uncured gonorrhœa which were supposed to be cured from the clinical and bacteriological standpoint. A positive reaction denoted the presence of a gonococcic focus in the body or a recent posterior infection; furthermore, a positive reaction may not disappear entirely until six or eight weeks after the other findings show negative results. If it persists for some time, the patient still harbors gonococci. A negative complement fixation test, does not exclude gonococcic infection. If the disease is limited to the anterior urethra the reaction will be negative and not positive.

The following are personal observations of gonorrhœal cases which were supposed to be cured or nearly cured:

Case No. 1. M. V. First attack of gonorrhœa; chronic anterior posterior urethritis, treated eighteen months with internal medicine and no local treatment; discharge subsided, urine clear, pronounced cured; later, notices a milky discharge in morning after sexual excitement, urine clear, few fine shreds.

Laboratory examination. Microscopic examination of the milky discharge showed gonococci and pus cells. Prostatic secretion showed large amount of pus, intra and extra cellular gonococci. Complement fixation test positive.

Case N. 2. P. N. Had gonorrhœa for six months—first attack. When examined for laboratory findings was at termination of massage and sounding; clinically well.

Laboratory examination. Microscopic examination of prostatic and seminal vesicles secretion showed few pus cells, epithelium, no gonococci. Microscopic examination of urine after massage showed few pus cells, epithelium, no gonococci. Complement fixation test, negative.

Case No. 3. A. D. First attack of gonorrhœa four years ago—treated locally, irrigation, massage and sounds. No trouble since that time.

Laboratory examination. Microscopic examination of prostatic and seminal vesicles secretion showed few pus cells, no gonococci. Microscopic examination of urine after massage showed pus cells and no gonococci. Complement fixation test negative.

Case No. 4. J. D. First attack of gonorrhœa three years ago. Treated year and half; irrigations, massage and sounds. Second attack year ago. Treated for six months, irrigation, massage and sounds.

Laboratory examination. Microscopic examination of discharge produced by silver nitrate, showed pus cells, no gonococci. Microscopic examination of prostatic and seminal vesicles secretion showed few pus cells and no gonococci. Microscopic examination of urine after massage showed few pus cells no gonococci. Complement fixation test, negative.

Case No. 5. J. L. J. Had gonorrhœa nine years ago, treatment unknown. Second attack dates June 1915; sub acute urethritis. Treatment, vasotomy and internal meatotomy and urethrotomy, massage and sounds.

Laboratory examination. Microscopic examination of discharge produced by silver nitrate showed pus cells no gonococci. Microscopic examination of prostatic and seminal vesicles secretion showed pus cells, no gonococci. Microscopic examination of urine after massage showed pus cells and no gonococci. Complement fixation test, positive.

Case No. 6. A. I. S. Had several attacks of gonorrhœa. Last attack dates March, 1915. Present conditions are chronic prostatitis, seminal vesiculitis and urethritis. Treatment, prostatic massage, irrigation and vasotomy.

Laboratory examination. First examination showed pus cells, extra and intra cellular diplococci both in secretion from massage and urine. Examination four months later. Microscopic examination of prostatic and seminal vesicles secretion showed few pus cells and no gonococci. Microscopic examination of urine after massage showed pus cells, epithelium and no gonococci. Complement fixation test, positive.

Case No. 7. F. E. First attack of gonorrhœa extending a period of one year and four months with epididymis. Treatment unknown. Discharged cured. Several months later noticed morning drop and discharge at stool. Examination showed gonococci. Treatment consists of prostatic massage, irrigation and vasostomy.

Laboratory examination. First examination of urine voided after prostatic massage, showed great deal of pus cells, extra cellular grams negative diplococci. Second examination four months later. Microscopic examination of prostatic and seminal vesicles secretion showed few pus cells, epithelium and no gonococci. Microscopic examination of urine after massage showed few pus cells and no gonococci. Complement fixation test positive.

Case No. 8. S. B. Patient denies having had intercourse.

Urethral discharge fourteen days duration. Urine cloudy. Treatment with irrigation and sounds.

Laboratory examination. Unable to express prostatic and seminal vesicles secretion. Microscopic examination after massage showed no pus cells no gonococci. Complement fixation test, negative.

Case No. 9. S. B. S. Had two attacks of gonorrhœa, first attack date last summer, which lasted three weeks; discharge ceased, patient discharged without sounding and massage. Second attack date June of this year with a profuse discharge. He denied having intercourse with anyone excepting his wife who had a profuse leucorrhœa.

Laboratory examination. Examination of discharge showed numerous intra cellular gonococci. Microscopic examination of prostatic and seminal vesicles secretion showed pus cells and gonococci. Microscopic examination of urine after massage showed pus cells and gonococci. Complement fixation test strongly positive. I may state here, that it is possible for this patient, in his first attack to have infected his wife and the leucorrhœa may have been gonorrhœa.

Case No. 10. C. D. S. Had gonorrhœa for four months and was treated by different physicians. He received irrigation, massage and sounds. Discharged cured.

Laboratory examination. Prostatic secretion was unable to be obtained. Microscopic examination of urine after massage showed pus cells and gonococci. Complement fixation test, positive.

Case No. 11. J. C. Had gonorrhœa for one year; first attack dates back 1913. Treated by different physicians by massage and irrigations. Received several months of treatment and discharged cured.

Laboratory examination two years after being pronounced cured. Microscopic examination of prostatic and seminal vesicles secretion showed pus and intra and extra cellular gram negative diplococci. Microscopic examination of urine after massage showed pus cells and extra and intra cellular gram negative diplococci. Complement fixation test positive.

Case No. 12. E. C. Had two attacks of gonorrhœa. First attack four years ago, second, a year later. Was treated by irrigation, sounds and massage. June 1914, urine showed to be clear, absolutely no discharge and has been drinking.

Laboratory examination. Unable to obtain prostatic secre-

tion. Microscopic examination of urine after massage showed pus cells and intra cellular gonococci. Complement fixation test, positive.

Case No. 13. M. M. Had gonorrhœa for four weeks, first attack. Under treatment of irrigation, massage and sounds.

Microscopic examination of prostatic and seminal vesicles secretion showed pus cells and few extra cellular gram negative diplococci. Microscopic examination of urine after massage showed pus cells, extra cellular gram negative diplococci. Complement fixation test, positive.

Case No. 14. H. B. Had gonorrhœa two and half years ago. Treated for six months with irrigation.

Laboratory examination. Prostatic secretion and urine was not examined. Complement fixation test, negative.

Case No. 15. T. M. Had gonorrhœa for three weeks, first attack. Under treatment for two months, irrigation, sounds and massage. Discharged cured.

Laboratory examination. Microscopic examination of prostatic and seminal vesicles secretion showed few pus cells, no gonococci. Microscopic examination of urine after massage showed few pus cells and no gonococci. Complement fixation test, negative.

Of the thirty cases examined, ten showed positive findings and twenty negative findings.

In conclusion I may say, that in consideration of the cases examined, we cannot emphasize too strongly the employment of scientific laboratory examination, before a case of gonorrhœa is pronounced cured. I wish to express my thanks to Drs. L. T. Ashcraft, J. M. Kenworthy, H. M. Shannon and others for their permission to report the cases and material for the laboratory examination.

METASTATIC GONORRHOËAL CONJUNCTIVITIS AND IRITIS.

BY

FRANK O. NAGLE, A.M., M.D., PHILADELPHIA.

SINCE the opinions concerning the diagnosis and etiology of metastatic gonorrhœal conjunctivitis and iritis are not fully known, I have taken the liberty of giving the profession an idea of this subject from an intimate study of the recorded cases

in the literature. The inspiration for this "Arbeit" came to the writer by a recent experience with this rare condition.

For many years the existence of metastatic ophthalmia following an attack of gonorrhœa was accepted. As a cause thereof, one viewed this "Eiterversetzung" as a result of suppression of the urethral secretion. Therapeutic measures were adopted toward the re-establishing of the urethral discharge in order to combat the ocular condition. This opinion was later given up, and the theory that metastatic gonorrhœal conjunctivitis depended upon direct infection, whereas a metastatic gonorrhœal iritis was undisputed.

Among the French ophthalmologists Fournier persistently upheld the existence of the metastatic gonorrhœal conjunctivitis. Among the German Augenartzen Haab was the first who acknowledged the existence of a metastatic gonorrhœal conjunctivitis. He saw in a patient who was suffering with an acute attack of gonorrhœa, a bi-lateral conjunctivitis with rapid healing in six days. Because of the mild rapid course and the absence of gonococci in the purulent secretion, he was of the opinion that this catarrhal phenomenon was not of direct infection but metastatic.

In 1885, Haltenhoff reported five cases of catarrhal conjunctivitis occurring during the course of urethral gonorrhœa. These observations became more frequent. Loeb called attention to the frequency of conjunctivitis during the course of gonorrhœal rheumatism and reported the following case. In a 29 year old workman, a catarrhal conjunctivitis appeared eight days after an attack of urethral gonorrhœa. The conjunctivitis healed up in eight days but returned when the patient suffered with gonorrhœal rheumatism.

Nobel reported a case where ten weeks elapsed before the metastatic gonorrhœal conjunctivitis appeared. The course of this disease is usually mild. In a few days the whole process disappearing "restitutio Ad Integrum." Lechner case was the most serious case reported. This case was complicated with corneal ulcer, iritis, and finally glaucoma.

Another clinical characteristic of this condition is bi-lateral involvement and the tendency to re-occurrences, especially with the appearance of joint involvement. (The treatment consists in the usual procedures for conjunctivitis.) While bi-lateral involvement seems to be prevalent, there are a few cases of authentic unilateral involvement of this conjunctivitis. Carrol

reports an instance where one eye was infected but at the end of the third week the second eye became infected, in spite of the protective bandage which he used, a sure proof of the metastatic nature of this disease. The following picture of metastatic gonorrhœal conjunctivitis is obtained from the study of the cases reported in the literature.

1. The condition is one of rather pronounced catarrhal conjunctivitis with injection of the whole eye-ball, which reminds one of scleritis; pain—photophobia—lacrimation are present.

2. The secretion is muco-purulent, not purely purulent and contains no gonococci.

3. There is no infiltration of the conjunctiva as is found in acute gonorrhœal conjunctivitis.

The condition is bi-lateral with the few exceptions reported above.

5. It is complicated at times with other gonorrhœal metastasis, as inflammation of the iris, cornea, and deeper structures of the eye. (Two cases of optic neuritis reported by Kurka.)

6. The beginning of metastatic gonorrhœal conjunctivitis is usually eight to fourteen days after an attack of gonorrhœa, although this interval may be prolonged to one of three months. Differential diagnosis. There are two conditions which must be considered, gonorrhœal conjunctivitis and the various forms of conjunctivitis. The former is usually unilateral and accompanied by infiltration of the conjunctiva and lid with profuse purulent discharge—opposed to the softer velvety conjunctiva tarsi and mucoid secretion of metastatic conjunctivitis. A further means of differentiation can be made with the microscope.

As far as the frequency of complications occurring with metastatic gonorrhœal conjunctivitis, a statistical list compiled by Kurka gives us a good idea. Out of twenty cases under his observation, the process was limited to the conjunctiva alone only in four cases. Five times there was infiltration of the cornea with loss of substance; nine times iritis was present and in seventeen cases there were joint metastases.

As to the frequency of metastatic gonorrhœal conjunctivitis, White found metastatic conjunctivitis once among eight hundred cases of urethral gonorrhœa but gonorrhœal iritis he found more frequent, about one case in every fifty or sixty. The conclusions of Kurka are altogether different. He leads us to believe that metastatic gonorrhœal conjunctivitis is a rare con-

dition occurring about once in a clinical material of twenty thousand in Fuch's clinic.

I have referred before to the fact that metastatic gonorrhœal iritis following an attack of urethral iritis has long been recognized. This condition is characteristically described by Foster in "*Handbuche der gesamten Augenheilkunde von Grafe-Samisch*." As far back as 1872, Königer reported a case of undoubted metastatic iritis following urethral gonorrhœa. "A 29 year patient developed gonorrhœal rheumatism eight days after his first attack. Three years later he acquired another attack of urethral gonorrhœa and in fourteen days, a left sided iritis appeared; healing progressed rapidly. After two years he acquired the third attack of gonorrhœa. Six weeks afterwards he developed rheumatism, and a week later the left eye again developed iritis with many posterior synechia."

The early recorded cases of metastatic gonorrhœal iritis are reported by Gosselin, Griffith, Kipp, Baylac, Gendron, Schultz, Del Castillo, Lehmann and Sonder.

Metastatic iritis develops one to eight weeks after an attack of urethral gonorrhœa but it is far stretched when one tries to bring an etiological relationship after this time has elapsed, as I have seen done in Vienna.

Foster believed this form of iritis is hardly capable of being distinguished from any other form. Von Grafe came to different conclusions. According to him, metastatic gonorrhœal iritis is especially a serous combined with increased intra-ocular tension with a deepened anterior. These symptoms appear to be the direct opposite to syphilitic iritis in which the intra-ocular tension is very little raised, anterior chamber shallower if anything; with one word syphilitic iritis is more plastic than serous. The course of gonorrhœal iritis is more rapid than the syphilitic form. As far as prophylactic measures are concerned, it is interesting to notice that many physicians formerly believed that the metastases occurred to the joints and to the iris through too rational therapeutic measures, for instance, they claimed the urethral injection was given with too much pressure. Former authors maintained that metastatic ocular diseases without joint involvement did not occur, but this opinion is not altogether true. There are many authentic cases recorded without any joint involvement.

The etiology of gonorrhœal metastases consists of theories only. One could be easily inclined to consider these cases of

metastatic conjunctivitis to be due to infection with a weakened gonorrhœal secretion. Opposed to this bespeaks the circumstance that this mild form of conjunctivitis appears often during the incipency of the urethral gonorrhœa, in other words, at a time when the urethral secretion possesses its maximum degree of contagiousness. Again, an accidental occurrence of an ordinary form of conjunctivitis with urethral gonorrhœa is hardly to be thought of when one considers the number of patients. Again, the conjunctivitis metastatica shows fairly typical course and re-appears in many persons with every new attack of gonorrhœal infection.

The supposition that gonococci finds its way to the conjunctival sac through the blood or lymph channels and from here produce a metastatic conjunctivitis has been given up by all. It is well to remark here that Kurka excised a piece of conjunctiva from a case of metastatic conjunctivitis and examined for a gonococci with negative result. More writers believe in the toxine action. Wassermann firmly believes the gonococcus possesses a specific poison. This poison exists in the gonococcus itself and with its death they migrate to their favorite localities.

A NEW HIGH TENSION APPARATUS AND ITS EFFICIENCY IN ELECTRO-DEHYDRATION AND THERMO-ALBUMENIZATION AS DESIGNED AND PERFECTED BY THE AUTHOR.

BY

RALPH BERNSTEIN, M.D., CLINICAL PROFESSOR OF SKIN DISEASES, HAHNEMANN MEDICAL COLLEGE, PHILADELPHIA.

Mr. Chairman, Members and Guests of the Homœopathic Medical Society of the State of Pennsylvania:

It is my pleasure at this time to present to the Homœopathic Medical Profession a new type of High Tension Apparatus which has been designed entirely for thermo-albumenization and electro-dehydration procedures.

Some eight years ago when I first took up the experimental treatment of epitheliomatous and pre-epitheliomatous lesions of the cutaneous surface, by the Carbon-dioxide or freezing method, I found that there were certain types of pre-epithelio-

matous lesions of the buccal mucous membrane which I was unable to successfully treat by refrigeration.

Carbon-dioxide was of no avail to epitheliomatous or pre-epitheliomatous mucous membrane lesions of the buccal cavity because of the moisture and bodily temperature present and further because sufficient pressure could not be exerted upon the lesions, because I feared œdema of the epiglottis and its consequences. The thought then struck me as Carbon-dioxide produces its effect in the treatment of cutaneous lesions by causing a mechanical rupture of the cellular structures involved by its intense low temperature why would it not be possible to bring about cellular disintegration of mucous membrane conditions by going up the scale of the thermometer instead of down. With this thought in my mind I was enabled to perfect a rather crude sort of an apparatus which gave me the results which I so keenly desired, and since then with more experience and consequently more knowledge upon the subject I have by slow and careful evolution been enabled to perfect a type of apparatus which is presumed in every way to be ideal.

My first experimentation was upon egg albumen, being enabled to cause its albumenization or coagulation by the formation of electrically generated heat by inserting an electrode therein.

My next experimentation was upon raw beef, which had been warmed up to bodily temperature by holding in the hands a sufficient length of time to cause it to be thoroughly warmed through, so as to determine the necessary amount of heat to cause its simmering or, in other words, its albumenization.

Having determined the least amount of heat necessary to bring about such a condition, and having devised a special instrument which I have since perfected, I proceeded upon my patient.

I first took a small area of epitheliomatous tissue far posteriorly on the soft palate near the anterior pillars of the fauces which was showing rather rapid progress downward.

Having first injected normal saline solution, getting a pressure anæsthesia thereby, and then inserting my electrode, permitting the specialized D'Arsonval current to pass through for a period of time.

Nothing more was attempted. I was gratified on my patient's return within twenty-four hours, to note that I had a decided erythematous reaction without œdema and without

pain. In twenty-four hours more there was a decided change in the color of the aforesaid area; it became decidedly yellowish in character, and in twenty-four hours more it was of a greenish-yellowish hue. In the course of two weeks this gradually disappeared, leaving a pinkish-white area in its place.

I then immediately proceeded to treat the other areas involved with the same gratifying results. These areas were of the villous type, intensely hard and indurated; but readily succumbed to this method of thermo-albumenization.

The villous areas after twenty-four hours became decidedly flat, appearing to have caved in, leaving almost a smooth whitish, lustreless area, which again after twenty-four hours underwent the similar process of involution as previously mentioned.

After a course of treatment lasting over six months, the entire area healed over with practically little or no scar formation, and has remained healed ever since, showing no signs of returning degeneration.

This patient had been to a hospital where they excised a specimen from his mouth, giving a report of its epitheliomatous nature. I likewise verified the diagnosis by my own microscopical examination.

Microscopical examinations of the areas treated seemed to show coagulation necrosis, an absolute disintegration of the cellular structures which were readily absorbed by nature.

The healthy cellular structures beyond the areas treated seemed to have greater resistance than the cancerous cells, and did not seem to be effected by the albumenization process and the amount of heat generated, the explanation being that the cellular structures were of a lower type of vitality.

Regretting we do not have electrical current here, I am unable to show you the apparatus and its exact workings but I have numerous photographs here which I shall pass around for your inspection and hope to show you at some future time the apparatus itself.

Having already cited a case, I will now proceed to refer to a few others, merely casually.

I shall next refer to one of the ideal results obtained in the case of Mr. H., of Havre de Grace, Md., referred by Dr. Crowther, of the same place. Patient was fifty-seven years of age, whose lesion began as a small papule on the inner side of the cheek.

This patient kept applying an irritating fluid thereto which

he stated was "good for man or beast," because such was the title upon the bottle containing the fluid which he used. This caused a gradual spread of the papular condition until it assumed a wart-like cauliflower growth, covering the entire side of the left cheek, and extending beyond to the angle of the jaw and of the hard palate.

Patient treated by injections of salt water and thermo-coagulation over a period of nine months, discharged apparently cured without a return.

This patient was discharged eight years ago with no return to date.

I will next report the case of Mr. R., of Atlantic City, kindly referred by Dr. Sooy, of the same city. Patient forty-four years of age, bus driver. The lesion had its beginning three years previous to treatment, appearing as a small white area on the right side of the mucosa on the inner cheek, due evidently to the constant irritation of jagged teeth. Lesion gradually spread, involving the mucosa of both cheeks, and as well involved the mucous membranes of the gums of both upper and lower jaw, beginning at the teeth margins, which were intensely filthy as the patient no doubt failed to carry out the necessary hygienic routine of the buccal cavity.

Here the areas began, as previously mentioned, as reddish erythematous spots which gradually became grayish or whitish in character, then becoming of the whitish moldy or fungoid appearance, and then becoming villous and indurated in type.

This was indeed a refractory case to treat, but after a period of treatment consuming practically a year, seemed cured at that time without evidence of return of any of the areas treated to date.

This patient had more or less reaction after treatments, there being some slight pain and more or less reaction and swelling. The areas treated alternating their appearance in twenty-four hours, becoming quite flat, and adhering closely to the cheek, losing the tripe and cauliflower appearance, and in forty-eight hours showing the usual characteristic greenish-yellowish sloughing, followed by gradual absorption and the appearance of smooth, pinkish-white areas.

Microscopic examination verified an epitheliomatous condition.

I would next refer to a case of epithelioma of the hard palate, referred by Dr. E. M. Vaughn, of Royersford. Mrs.

H., 70 years of age, of Spring City. The lesion was of the rapid proliferating type, beginning as a nodule about the size of a pea, and rapidly enlarged within two weeks until it became the size of a hazelnut.

The lesion was practically without pain, decidedly vascular in type, with intense hemorrhages; the slightest irritation causing a profuse outflow of blood which was almost impossible to check.

The patient stated that she had noticed a soft spot in her mouth six months previous to coming for treatment, but paid no attention to it because it did not annoy her.

The lesion was decidedly bluish-purple in color and may have been of a telangiectetic type with rapid epitheliomatous degeneration. There was no history in the family of epithelioma. This patient was given one treatment by thermo-albumenization. Twenty-four hours after treatment showed a zone of erythema about one-quarter of an inch beyond the area treated. In forty-eight hours the lesion showed the usual greenish-yellowish sloughing about the spot, but not entirely around the area of erythema beyond; reaction being at the point of the electrode.

There was decided hemorrhage during treatment, to which little attention was paid, which, however, gradually ceased before the electrode was withdrawn, and which ceased immediately upon the application of light pressure.

Patient had no more hemorrhage after the treatment, and the lesion appeared to be shrunken about one-half in size. Within seventy-two hours the lesion was quite flat and appeared to be shrunken below the surface.

Patient reported absolutely no pain or inconvenience, and no recurring hemorrhage. The lesion now had the peculiar greenish-yellowish sloughing, and gradually retrograded, leaving a pinkish area with a fine linear scar. Has showed no signs of return, and she is a perfectly contented woman, eating her usual food and going about her daily occupation.

Microscopic examination verified the epitheliomatous diagnosis.

Patient remained well until her death two years ago from Brights disease.

The foregoing cases which I have just recited to you were all treated from five to eight years ago with the splendid results as mentioned.

This new type of high tension apparatus with its even greater efficiency has been doing the same splendid work, more rapidly, with less pain and with better cosmetic results than even the older type of apparatus showed.

My work in electro-dehydration, so-called desiccation by some, fulguration by others has consisted of the successful treatment of all types of epitheliomatous and pre-epitheliomatous lesions of the skin without apparent discomfort to the patient because with this new type of high tension apparatus the bombardment is so rapid that the patient virtually feels no pain until the procedure is over and then merely a slight burning which remains a very short time.

This new type of high tension apparatus is peculiar in the fact that it is without a spark gap; hence the absence of the annoying psychic distress with which the patient is wont to suffer in hearing the peculiar spark gap hissing.

Again, by the means of a rheostat one is enabled to control the dehydration spark to a very fine nicety, and a cold spark so fine in fact that one is perfectly enabled to remove enlarged capillaries of acne rosacea without the least difficulty.

Epithelial tumors can as well be thermo-albuminized by attracting the electrically generated heat through the patient's body having previously inserted a specially devised instrument for the purpose. The simplicity of the construction of the apparatus itself materially cuts down a lot of unnecessary equipment which certain investigators claim absolutely essential.

Since this type of apparatus is without a spark gap, the German word *Losch* is used in explanation thereof rather than the word quench as it is rather nearer the exact meaning of the action than the word quench.

The essayist in following out his researches along the lines of intensive high frequency currents has followed closely the literature of such men as Bordeir, LeComte, Sommerle, Wertherm, Solomonson, Qimmerman, D'Arsonval and others and as well has contributed to the literature thereof as published from time to time in *THE HAHNEMANNIAN MONTHLY* and other Homœopathic Medical Magazines.

For a long time we have known intensive high frequency currents, "not sparks" have an internal heating action in the human tissue.

The basic principle upon which this method depends is due directly to a method for producing continuous oscillation. These

continuous oscillations in an electrical circuit were first developed by Paulsen by means of his well known method of utilizing the electrical arc, but this system is not practical when used in therapy and several methods have been tried out until at last we were successful in obtaining a quench spark gap which has given us the desired result.

In reiteration in using this word quench in connection with this apparatus, the writer prefers the German word *Losch* as being more nearly the exact meaning of the action. The extreme high frequency in the apparatus is obtained by a combination of circuits containing a high voltage transformer, inductance capacity, and an especially constructed gap for producing continuous oscillation.

The heating effect of this current differs from the ordinary electrical current inasmuch as the ordinary current heats from the outside inwardly while this current heats from the inside outwardly. In other words, the heat is induced in the tissue with the ordinary electrical currents such as galvanic or direct current or alternating current. It is not practical to use their heating effect in connection with therapy principally because of the physical sensations which accompany their use.

Not so when currents of extreme high frequency are used. The continuous oscillation of the current is produced by this modified apparatus. It produces the intense heat without any muscular sensation to the patient. The heat is proportional to the square of the current, the thickness of the part treated, the time of the oscillation multiplied by the consonant. The induced heat can be calculated according to the following formula: Q equals C times I squared times W times T , in which C is the consonant; I the current, W the thickness of the part, T the time and seconds and Q is the heat in gramm calories.

In conclusion permit me to state it is always well to remember that caustics, nitric acid, carbolic acid, silver nitrate, etc., should never be used in the treatment of epitheliomatous or pre-epitheliomatous lesions of either the buccal cavity or cutaneous surfaces because they merely stimulate the deeper cells to renewed life and activity and I know of no better method of procedure in treating these types of lesions than by methods of electro-dehydration or thermo-albumenization.

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Monthly*, October, 1911.

DISCUSSION.

DR. MARSHALL: I should like to have Dr. Bernstein give
us his differentiation for that form of treatment in comparison
with radium, in leukoplakia and diseases of that type.

DR. BERNSTEIN: I should say that this is the poor man's
radium. We have not sufficient radium to go the rounds.
Treatment with radium necessarily takes a long period of time.
The patient receives one treatment with this apparatus, taking
only from one to five seconds to dehydrate an area as large as
an almond. Patients cannot always afford to pay for radium,
when they can pay for this treatment.

I might further state that I am working in connection with
some genito-urinary experts of our School of Medicine, to per-
fect a method of working on the bladder, so as to dehydrate
tumors of the bladder at one sitting, generating the current
in the patient's body and attracting it to the tumor. We can-
not now direct the electrode down through the catheter into
the bladder. So far, we have not been able to use the cysto-
scope to pass the current through the bladder without short-
circuiting it. We want to get the cystoscope managed in some
way so that we can insulate it. I hope that we can do that.
We can then pass it through the bladder and albuminize the
tumor at one sitting.

INTRA THORACIC DIAGNOSIS BY THE ROENTGEN RAY.

BY

WALTER C. BARKER, M.D., PHILADELPHIA.

WITH the apparatus used in earlier days of roentgenography, the lung tissue by offering but small resistance to the roentgen ray, made it possible to reproduce the lung, heart and great vessels upon the photographic plate. While the motion of the heart formerly interfered with the value of the plates, the fluoroscope made it possible to study this organ by observing the variations in its pulsatory movements. The roentgenographic findings have not only greatly aided in the physical examination, but have given the additional advantage in showing the presence of lesions too small to produce physical signs.

The technic is to use a soft tube, backing up a five inch spark gap with fifty milliamperes of current, and exposing the plate one-half second, at twenty-six inches from the target of the tube.

The patient should stand with the back pressed against the plate, in a position to cause the central ray from the tube to pass through the median line of the chest at the level of the fifth rib anteriorly. The patient must fill the lungs and hold the breath while the exposure is being made. To show the excursion of the diaphragm another plate should be made during forced expiration. The lateral, right and left oblique positions successfully may then be rayed, in order to show the great vessels and oesophagus. To outline the oesophagus, it is necessary to make an emulsion of bismuth in gum acacia solution and take the picture while the patient swallows the opaque mixture.

To read the plates, first observe the spinal column. It should be straight and overshadow the sternum and great vessels in the antero-posterior position of examination. The relative position of the diaphragm is noted, the right side invariably being higher than the left. In the ordinary plate, the heart shadow is much enlarged because the tube is so close to the body that the rays diverge. Two-thirds of the heart should be to the left of the median line, with the ascending aorta to the right and its arch coming up to the lower border of the

third rib posteriorly, and the descending aorta passing down on the left of the median line.

The trachea shows through the vertebra as a narrow strip of less density, dividing into the bronchi at the fifth thoracic vertebra. The hilum of the right lung shows as a denser area with striae going into the lung tissue, due to shadows cast by the blood vessels. The hilum of the left lung shows through the cardiac shadow. The small round areas about the vessels are due to thickened glands. Nearly all lungs show some thickened glands but their presence does not always mean tuberculosis.

To the roentgenographic study of the lungs must be given the credit for our present clinical picture of the primary invasion of pulmonary tuberculosis as a bronchitis. The bronchi may be traced from the trachea to the hilum, but the subdivisions cannot be shown upon the roentgenogram. The shadows of the blood vessels give the striated appearance in the lung. With the invasion of the tubercular bacilli we have the leukocytes acting normally surrounding the invasion and carrying the bacilli into the lymph nodes which lie alongside of the blood vessels. The very earliest indication of tuberculosis is the hazy appearance about the hilum of the lung, in the form of small mottled areas along the sides of the vessels. This is the infiltration of tuberculosis into the lung. As the disease advances the mottled areas appear along the line of the blood vessels. When there is a coalescing of several of the small areas and a breaking down of tissue, consolidation is produced. With still more breaking down of lung tissue with softening and absorption, there is cavity formation.

The course of tuberculosis varies in different individuals. It may travel along the lymphatics to the apex and extend downward giving a mottled appearance and showing areas of consolidation and cavity formation, or it may affect the pleura causing a marked thickening and producing almost the density of a fluid. There may be a fibrous formation and hence the arrest of the disease. The early invasion may be checked and the tissues undergo calcareous changes, thus producing a cure in the stage of invasion.

In the roentgenoscopic examination for tuberculosis, the lessening of the diaphragm excursion is only suggestive, because the motion may be limited by other causes. The same is true with finding the small heart and enlarged bronchial glands. The presence of enlarged bronchial glands in child-

hood is very significant of tubercular invasion, but the most characteristic appearance is the mottling along the vessels or throughout the lung shadow.

The typical cases of pneumonia with the clinical picture and classical signs, need no help from the roentgenologist. Where the lesion is central, or the invasion starts at the base of the upper lobe, it can be readily diagnosed by its roentgen ray. Here the first physical signs appear in the axillary region. The roentgenographic study shows that the lung does not regain its normal state for many months after an attack of pneumonia. This may be considered in making a diagnosis of tuberculosis, in which case there is a mottling throughout the lung tissue, while the resolution from pneumonia causes more of a streaked appearance.

Bronchial pneumonia shows a mottling about the vessels especially about those at the roots of the lungs. To make a diagnosis, this must be considered with the physical signs and symptoms.

The study of the pleura is very important. There may be a general thickening which gives a hazy appearance to the lung shadow, or there may be fluid within the cavity which causes a very marked shadow, with the lung tissue showing above the denser area and changes in the position of the line of density occurring when the patient changes his position as from the lying to the upright. If there is air and fluid in the pleural cavity the separating line, in the standing position, is very sharply defined with the less dense shadow of the air distended pleural cavity above.

To outline the oesophagus, it must be distended with bismuth solution, with the tube to the right posterior oblique and the plate in front to the left of the chest. Dilatation of the oesophagus is due to obstruction and very marked cases are usually the result of benign strictures. Where the strictured part is ill defined and irregular, it is due to malignant growth. Spasm may also cause obstruction and slight degree of dilatation. This may be overcome by atropine and morphine and the plate show a normal oesophagus.

The physical findings differentiate the various organic lesions of the heart with a fair degree of accuracy so that, as a routine procedure, the roentgenographic examination is not necessary. The study of the various pulsatory movements of the heart

gives more information than one or more pictures, so that the roentgenoscopic examination is necessary.

With the patient in the standing position, the tube being behind and a fluoroscope in front, the dark area shown dividing the thoracic cavity vertically, is the shadow of the sternum, heart, great vessels and spine. At the lower right side of the shadow there are two pulsating curves. The upper is the ascending aorta, and the lower the right strium. On the left side there are four lines of pulsating curves. The lower line represents the left ventricular pulsating with the apex beat. Above this, and alternating with the lower pulsation, is the left atrium. Above this is the pulmonary artery with its feeble pulsation, and last comes the aorta with a stronger pulsation.

Variation from the normal pulsation is of diagnostic importance. Thus a very vigorous pulsation of the pulmonary artery, which as has been stated should have a feeble one, suggests a persistent ductus arteriosus, perforation of an aortic aneurism into the pulmonary artery or congestion of the lungs. Pulsations seen in the right ventricular shadow indicate a deficient interventricular septum. Violent pulsation of the right atrium could be due to mitral disease, especially stenosis.

The size and position of the heart cannot be directly determined from the plate nor screen examination. The relative size of the heart can be shown by teleroentgenography. A plate is placed in contact with the patient and the tube so located that the target is seven feet from the plate, from which we may judge the size of the heart under examination, because the shadow corresponds very nearly to the size of the object casting it.

A more accurate method of examination is that of orthodiagraphy. In this, a pencil is fixed to move with the central ray from the tube. By outlining the shadow of the heart on a piece of tracing paper, it is possible to estimate within one millimeter of the correct size of the heart. The position of the heart can be traced in the same manner as the size. It has been found that one-third of the heart lies to the right of the median line and two-thirds to the left. Compared with the erect axis of the body the heart lies in an oblique position, with the base above and the apex to the left below. From a lateral view the base is posterior with the retrosternal space separating it from the chest, while the apex is at the chest wall and the retrocardiac space behind.

By gravity the position of the heart changes with the position of the body, and because of the attachment of the pericardium to the diaphragm the heart changes position with respiration. It also occupies different positions in childhood, adult life and old age. The position of the heart may be changed because of congenital dislocations, intra abdominal pressure, intra thoracic pressure, or adhesions in the pleura.

The size and shape of the heart may be changed because of valvular disease and circulatory alteration that change the strain upon the cardiac muscle.

Changes in the shadow of the great vessels is most often due to aneurism of the aorta. If the ascending position is affected, the shadow is enlarged to the right. If the descending portion is the seat of dilatation, the vessel shadow is enlarged to the left. If the arch is the seat of trouble there is more of a hook shape at that point. If aneurism occurs in some of the branches from the aorta, the shadow lies above the arch. The shadow of an aneurism is an expanding, pulsating shadow. This will differentiate an aneurism of the branches of the aorta, from a intra thoracic goiter.

Spindle shape enlargements of the aorta are suggestive of syphilis.

A general enlargement occurs with athromata of the arteries.

The chest is a frequent location for metastatic growths and primary tumors.

Metastatic growths are found in the region of the bronchial glands, especially from the hilum to the base of the lung. They are irregular and not well defined in outline.

Tumors of the thymus gland extend to the left of the sternum and may distort the shadow of the great vessels. The growth is sometimes best shown in the lateral view.

Intra thoracic goiter is well defined in outline, which fact differentiates it from malignant disease, in which there is a diffused outline.

Malignant growths of the oesophagus are shown by opaque paste being swallowed.

Fibroids and fatty tumors are well defined and may occupy any position in the mediastinum.

Tumors of the chest are not suspected unless they involve the pleura causing pain, the bronchial tubes causing dyspnoea, the oesophagus causing dysphagia, or the great vessels causing stasis.

The special value of the roentgen ray in the diagnosis of thoracic tumors, is to show the presence of metastatic growths before an operation for the removal of malignant ones of the breast, axilla or cervical glands is considered.

SUB-CONJUNCTIVAL INJECTIONS.

BY

PERCY A. TINDALL, M.D., PHILADELPHIA.

THE subject of sub-conjunctival injections of various solutions is one of considerable importance and the discussion of such an important therapeutic measure might prove to be of some service. We have treated a great number of cases in the past year in our dispensary and hospital work and the cases presented covered quite a variety of diseased conditions. We have used the injections in inflammatory and in non-inflammatory cases, in comparatively simple conditions and also in the most severe and serious conditions. We have had great pain follow some injections—comparatively few however—and then we have had others—the great majority—with very little discomfort following the injection. But in none of our cases have we had any harmful or deleterious results follow. Our solutions have been normal saline or cyanide of mercury 1 to 5000 and when using the latter, we frequently would incorporate some few drops of acon solution to lessen pain. Our usual endeavor would be to place the solution as far posteriorly as possible. When it was impossible because of a variety of reasons to place the needle as desired, the solution would frequently gravitate toward the limbus and sometimes simulate a decided chemosis, but outside of that, we have had no untoward results with an injection placed anteriorly. We have used the injections in children and in adults of all ages. Our immediate effects and final results have varied to a greater or less extent, but with sufficient regularity in the results to warrant the statement that without its use, many cases would have had a more serious involvement, if not a loss of function, of the organ involved.

The action of these injections can be explained either as an irritant or lymphagogue—as an irrigant—and as a germicide

—or as a combination of one or all. The lymphatic system of the eye, with its infinite anastomoses or connecting spaces, affords a ready channel for the conduction of the fluid used and as Darier says “it seems quite logical to assume that the most certain means of making soluble remedies penetrate the interior of the eye, is to inject them under the conjunctiva.” But experience has proven that in cases that show a circulatory stasis subconjunctival injections are contra-indicated, from the fact that the obstructed lymphatics will not permit of a free interchange of fluids and will only increase the œdema that may be present or will produce an artificial œdema that will not readily absorb. Depending upon the solution used in such cases we may have decided pain persist for several hours in association with the œdema and the œdema may last for twenty-four or thirty-six hours. The œdema may not only involve the eyeball itself, but may extend to the eyelids and occasionally the appearance is somewhat alarming especially to the patient. Even though such a reaction is not desired and would be avoided when we are able to discriminate as to the advisability of an injection, our results in some of such cases have been quite satisfactory and as before stated, outside of the temporary discomfort following such a severe reaction from the injection, no deleterious results have occurred in our cases.

In looking over our cases it appears that our most disappointing results have been in the acute corneal conditions, such as *ulcus serpens*—with and without *hypopyon*—acute diffuse keratitis—and in fact most of the acute corneal inflammations. In this class of cases, our best results were obtained under the older method of treatment—namely atropin, the use of iodine, alcohol and such agents directly to the affected area and the use of internal medication. If these cases were doing fairly well, we would sometimes endeavor to hasten the repair by an injection, but as a rule we would find that the condition would be retarded rather than benefited. This is speaking especially of the corneal conditions in the acute stage, but when they last a rather long time as they often do and appear to reach an indolent stage, an injection then would often be of decided help. In cases of *iritis* or *kerato-iritis* that were doing well under the usual treatment, no benefit appeared to be derived from the injections, but when the condition did not respond to the usual remedies and the pupil remains small and often with *synechia*, it would be surprising to see how the *synechia* would

break down and the pupil become larger, permitting the full scope of the action of atropin. Sometimes only one injection was required and as a rule two or three injections were sufficient for most cases.

In interstitial keratitis, especially those cases of a more severe character, where the pupil would remain comparatively small in spite of the continued use of atropin, increased dilatation, with its usual helpful effect, would practically always ensue. In the older cases of the same condition, an occasional injection, using cyanide of mercury as a rule in this condition, would hasten the absorption of the corneal infiltration.

Some few cases of phlyctenular conjunctivitis and keratitis, especially the obstinate ones, were given the injections and the results were considered beneficial. The reason for not treating a greater number of such cases was because of the difficulty in controlling such little patients without the use of ether and then our usual method of treatment both local and general, often times only the single remedy, was generally prompt and sufficient.

In cases of vitreous opacities, especially of the chronic type, the injections appeared to be of considerable service. In retinal hemorrhages both of traumatic origin and those due to vascular changes wherein the pathological process had ceased its activity, and where the results of the hemorrhage remained unchanged, injections often proved of decided value in hastening absorption.

Quite a number of cases of incipient cortical cataracts have been treated by the injections, in this class of cases sometimes using a weak solution of potassium iodide—one to two grains to the ounce of distilled water—and very seldom using the mercury solution. In a considerable number of such cases our results have undoubtedly been of considerable service in proving that it is not wise to permit a cataract case, in the early stages especially, to go untreated, for the vision has cleared two or three lines comparatively frequently and in many other cases progressive opacity has been retarded and the patient retained sufficient vision to attend to the ordinary duties of life. Of course we are all familiar with the vagaries in the development of lens opacities, but we must admit that often with intelligent application of the various therapeutic measures before us, many cases of progressive cataracts have been retarded and vision improved.

In chronic irido-cyclitis and in cases of active macular and disseminated choroiditis, the results obtained have proven the injections, especially of cyanide of mercury, to be one of our chief therapeutic measures.

In simple glaucoma, the injections apparently had no appreciable effect.

EARACHE IN CHILDREN.

BY

ELLEN WALKER, M.D., SHARON, PA.

EARACHE in infancy and childhood means almost invariably an obstructed eustachian tube. There are two types. First, usually in a child subject to earache, there occurs a sharp acute attack lasting from a few minutes to half an hour and disappearing as suddenly as it came, without exudation. At intervals, especially after exposure, it recurs again and again. Inspection of the drumhead in these cases shows changes varying from slight dullness and hammer handle congestion to marked retraction. The condition is one of vaso-motor changes in the tube with sudden obstruction and consequent negative pressure in the middle ear. With the restoration of vaso-motor control, the obstruction suddenly disappears, pressure in the middle ear is restored and the pain immediately ceases. Repeated often, these attacks lead to changes in the middle ear, and retracted and thickened drumheads with consequent hearing disturbances.

Earache of the second type is severe, continuous, increasing, accompanied by exudation into the middle ear, a perforated drum-head, a serous, and later a purulent discharge externally. This type usually follows in the wake of some of the infectious diseases, grip, measles, scarlet fever, diphtheria, tuberculosis, typhoid, whooping cough, etc.

The ear and its appendages are rarely the seat of a primary inflammation. Invariably such inflammations are secondary disturbances in the adjacent upper air passages, the nose and naso-pharynx. In childhood, the source is usually an acutely or chronically infected adenoid. Nasal deformities and hypertrophies and sinus suppurations so common in adult life are not prominent factors.

Earache occurring during the course of one of the acute infections mentioned above means naso-pharyngeal involvement with extension of the infection to the tube and probably the middle ear, with exudation.

Earache, without discharge externally occurring repeatedly in a child means subacute or chronic tubal inflammation, due to repeated acute exacerbations or a chronic adenoiditis. Occasionally such earache in children may be reflex from the teeth.

Treatment. Examine carefully the ear-drum with speculum and mirror. If it shows slight retraction or no decided change from the normal, and the patient has a history of returning earache, quickly subsiding, and there is present no acute infectious disease, we may treat the case expectantly for a few hours. Fill the ear with warm water, with the child lying on the opposite side. Add, drop by drop, to the warm water in the canal, water with very high temperature, 180 to 200°, raising the temperature of the water in the canal as high as it can be borne.

Dry gently and quickly, and cover the side of the head with cotton, over which apply a hot water bag. Should the pain recur or increase in violence treat it as an infective process. If the ear is relieved and the child soon as well as ever with the indicated remedy, to avoid a recurrence, examine the throat carefully at an early date, remove the adenoid or adhesions about the mouth of the tube which will almost always be found present, and follow this with several inflations and mechanical massage of the tube.

If on the other hand, the condition is of the infective type. on examination we shall find the drum dulled or reddened or bulging. Now the ear is filled at once with a strong, *hot* solution of cocaine in alcohol. This is allowed to remain a minute, then drained off. We have sterilized the canal and to some extent anæsthetized the drum-head. Puncture the drum-head with a sharp Knapp's knife needle in the lower posterior quadrant, or at the point of greatest bulging. Light suction is applied and if much exudation is obtained, the puncture in the drum-head is enlarged to provide good drainage. If serous exudate is found to be much, or little, a small sterile gauze wick is placed in the canal from the incision in the drum-head to the meatus. Loose gauze is packed over this and outside a

heavy protection of cotton, the patient put to bed with hot water bag in contact with the cotton dressing.

If no discharge is obtained, a light cotton dressing only is placed in the meatus and the patient is allowed to be up and about unless other conditions as the preceding infection, an elevated temperature, etc., prohibit. Now make an examination of the nasal cavities and naso-pharynx and if, as is usual, we find swollen turbinals and an infective adenoiditis present, a weak cocaine solution is applied for a minute within the nares, the mucous is wiped out with cotton on probes dipped in Ochsner fluid, then wiped dry, and a few drops of 25% or 50% Argyrol dropped into each nostril and allowed to find its way back into the naso-pharynx, the patient expectorating it through the mouth. Give the indicated remedy—or vaccine—and in addition give 30 or 40 grs. of Urotropin in 5 or 10 gr. doses, well diluted in water, in the next twenty-four hours. In 12 hours the drum-head is inspected again. If there has been discharge and the ear is draining well, nothing is done but to renew the wicking and dressings. If no discharge and the pain has not returned the canal is lightly packed again and left alone for three or four days. In both cases the nose and throat treatment is repeated in twelve hours. When the discharge in the ear becomes thick, suction is applied and the wick omitted, the ear being dried with sterile cotton on tooth picks. As soon as the acute process has subsided and the temperature becomes normal the infected adenoid should be removed, unless there are special contra-indications.

Later when recovery has been fairly complete, inflation and massage of the drum-head is carried out for four or five treatments.

By following this course of treatment we are rationally meeting the indications. First, we are supplying through the drum-head early in the disease, the drainage or ventilation denied to the middle ear cavity by the closed tube. Second, by an aseptic technique, we are avoiding secondary infection. Third, by the Argyrol treatment we are depleting and sterilizing the source of infection. Fourth, by the Urotropin, we are enabled to some extent to sterilize cavities in the middle ear, the antrum, and the tube, which are not accessible to locally applied antiseptics. Fifth, by the internal remedy or vaccine, we are aiding the patient to acquire an immunity to the specific infection. It can be carried out in any age from infancy up.

Under it the course of the disease is greatly shortened and disturbances of hearing from big perforations of drum-head, adhesions, retractions and ankylosis are avoided. Complications may occur in spite of this care, but the danger is reduced.

A child who, in spite of submission to the above treatment conscientiously carried out, with the ear draining well, continues to show an increased temperature of 99.5 or above, who continues peevish, irritable, pale, with an accelerated pulse and shows some tenderness on pressure over the mastoid, should be submitted to a mastoidectomy without delay. A temperature of a remittent pyæmic type, 99 to 100 rising rapidly to 104 or 105 and as rapidly breaking again, in the course of a middle ear affection, whether that ear be discharging or not, is strongly suggestive of sinus thrombosis and demands immediate surgical attention.

SURGICAL TUBERCULOSIS OF PERITONEUM.

BY

H. B. REPLOGLE, M.D., ALTOONA, PA.

ACUTE tubercular peritonitis is usually miliary in character, and affects the other organs as well as the peritoneum. This usually originates from the pleura and the tubercle bacilli are carried through the lymphatics. The course is more insidious than acute and manifests itself by fever, vomiting, pain, enlargement of abdomen, and ascites which is free in the abdominal cavity. Post mortem we find not only a tubercular affection of pleura and peritoneum but of the liver, lungs and spleen and various other organs. Von Pirquet's may be negative.

The treatment of acute tubercular peritonitis is rarely surgical. The treatment of tubercular peritonitis with effusion is essentially one of tapping and aspirating both pleural and peritoneal cavities.

Chronic tubercular peritonitis is the type nearly always found. In fact Dieulafoy states that it is rarely if ever acute. It is comprised in three varieties:

1. Ascitic with peritoneal effusion.
2. Caseous, Ulcero Caseous, or Fibro Caseous.
3. Fibro Adhesive Lesions.

This last has a curative tendency, but sometimes creates vici-

ous adhesions. These lesions are found in every case of tubercular peritonitis. Although one or the other lesions predominates in each case.

Ascitic Form.—Sometimes fluid is so great that it is difficult to differentiate it from ascites. This is the most common form in youth. The fluid is citron colored serosanguinous, and is free in the abdominal cavity. Tubercles of all sizes and ages are found in the peritoneum which is vascular. Caseous lesions, as a rule, are absent. The onset is febrile, especially in children, temperature ranging from 101 F. to 103 F. Colic, pain and distention. Examination reveals ascites without dilatation of abdominal veins. After the acute onset is over the silent stage follows. Pain and fever disappear. Ascites remains, but does not become so great as to necessitate tapping.

The child becomes thin and anemic; appetite is poor, but the child does not grow worse rapidly. Sometimes after several months, fluid subsides and a spontaneous cure results.

It must be differentiated from ascites due to cirrhosis, cardio, hepatic ascites and renal disease. In cirrhosis the liver is small, in cardio hepatic there is a cardiac lesion, in nephritis there is albumin and symptoms of nephritis.

Chronic Fibro Caseous Form.—This is the usual form in adults and is the typical chronic tubercular peritonitis. The viscera may be covered with thick, false membranes which are liable to give rise to errors in diagnosis. The peritoneum, mesacolon and omentum are very much thickened, due to tubercular granulations. Many adhesions are found, intestinal coils matted, cavities filled with caseous matter, diameter of intestines is contracted. The walls are friable and atrophic, length decreased, ulcerations found on their surface, omentum becomes retracted, matting of intestines may simulate a tumor, anastomoses between two coils may be present. The rupture of an ulcer may cause peritonitis. Effusion as a rule is scanty, seropurulent or flaky. Sometimes hemorrhages take place and clots are found in the abdominal cavity. The mesenteric glands are involved and may become so large as to cause pressure and oedema of the lower extremities. The omentum retracts, thus favoring intestinal occlusion.

Nearly all chronic peritonites are tubercular. The disease affects chiefly young people and adults and not those with advanced phthisis. Thus the abdominal lesion assumes prominence and a lesion in the lung may be overlooked.

Symptoms: The patients have abdominal pain. Alternate diarrhœa and constipation, sensitiveness over the abdomen, sometimes an omental band due to omental thickening, may be felt over the abdomen from one hypochondrium to the other. The course is chronic and may run over a course of several years, often with a fatal ending, although recovery is possible. Progressive wasting and cachexia is present especially so if the lung is involved. Peritoneal abscesses and fecal fistula may be present. Cold abscesses without fever or fever with rigors. The complexity of the situation often makes diagnosis difficult.

Intestinal Occlusion.—In the course of tubercular peritonitis is of four kinds. First, a band which strangles the intestines. These bands are very common in this disease and may strangulate large or small intestines. This may be the first indication that tubercular peritonitis exists. Second variety is by kinking from adhesions. Third is due to matting and narrowing of the intestines, pressure from tubercular masses. Fourth, here paralysis results and peristalsis is absent.

Symptoms: May be sudden or slow onset. When it takes place suddenly it almost always shows latent tuberculosis, diagnosis being made only after the abdomen is opened and bands and tubercular granulations are found. Ballooning of abdomen and fecal vomiting. If low arrest of feces. If high fecal vomiting will be absent. Slow onset chiefly in confirmed tuberculosis of peritoneum, temporary improvement after each attack, then relapse, which is usually worse each succeeding attack.

Diagnosis of tubercular peritonitis is very difficult in many cases, because patient's health may be good and lungs appear healthy. Tubercular peritonitis must be differentiated from hydatid cysts and peritonitis of alcoholics and Bright's disease, and cirrhosis of liver. In cirrhosis of the liver the fluid is not encysted, fluctuation is not limited, and the collateral circulation is well marked. Liver is small, spleen large; in tubercular peritonitis one can feel band from omentum across abdomen; both may be present; then diagnosis is difficult. In the dry form it may simulate a tumor or ovarian cyst, as in one of Spencer Mills' cases opened for cyst and found tubercular peritonitis. Cancer must be excluded; here glands are usually enlarged in inguinal region and effusion is hemorrhagic.

Tubercular peritonitis usually attacks children between six and twelve years of age, although it is not uncommon in adults, and especially in young soldiers. It is due to the Koch bacillus

and although it would seem to come from tubercular ulcers in the intestines, yet it does not as a rule. Autopsies show that many cases of tuberculosis of the bowels show no lesion in the peritoneum, and vice versa.

Tuberculosis of the bowels is usually secondary to the affection in the lungs, and although there are caseating mesenteric glands and deep ulcers yet no peritonitis. My conclusion is that tuberculosis of the peritoneum usually originates from the pleura and spread by the lymphatics through the diaphragm. In two hundred autopsies which I witnessed, performed by Dr. Stowe at the Metropolitan Hospital, with tuberculosis of the bowels only four had peritoneal lesions and it is a question whether these were not secondary to a tubercular pleurisy, as ninety-five per cent. were in phthisis patients.

Treatment: The internists claim that a large percentage of cases can be cured by hygienic and dietetic treatment. But their percentage of cures vary so much that it leads one to the conclusion that this particular line of treatment is not very satisfactory. The surgical treatment is the treatment, and, generally speaking, gives the best results as well as the quickest. The highest percentage of cures has been recorded from early operation with proper hygiene and diet. The best results are obtained in the ascitic form, and where the case has been diagnosed and operated before so many adhesions have formed or matting of intestines has occurred. The operation consists of opening the abdomen and draining and flushing the abdominal cavity with saline or by the use of a tube instil oxygen into the abdominal cavity, this can be used with the saline if one prefers. The routine was to merely open the abdomen, break up adhesions and close again. I think the results are very much better by making use of the former method. I have had some good results by flushing with equal parts hydrogen peroxide and water until the tubercles become a pearly white. Then the abdomen is flushed thoroughly with saline and closed. The great majority of cases show almost immediate improvement. This goes on to cure in a great many cases, according to statistics, about sixty per cent. Those cases that relapse should be opened and treated as often as necessary to effect a cure, unless there are strong contra-indications, such as advanced phthisis or advanced tuberculosis of some other portion of the body. Three cases I report will illustrate three different lines of treatment and their results, viz.:

CASE 1.—Miss B., fourteen years of age. Four weeks ago she was taken with indefinite pains in the abdomen—with tenderness and some rigidity. Von Pirquet test was positive. Patient became steadily worse under medical treatment; lost fourteen pounds in four weeks; was becoming rapidly enemic and pains and rigidity increased, as well as some ascites present. Abdomen opened and flushed with saline and anti-tubercular treatment used. Patient made an uneventful recovery, gained twenty-five pounds in two months, and to-day is living and well.

CASE 2.—Master A. A previously healthy boy taken with severe abdominal pains which improved temporarily under treatment, only to relapse at frequent intervals, each attack apparently becoming more severe and more difficult to relieve. This happened June 10, 1913. Patient treated expectantly for one month. Von Pirquet negative. I advised operation, which was done July 10th, 1913. Tubercles of all sizes and ages were found. A band was found partially strangulating the descending colon, this probably accounting for the severe pain. The worst adhesions were separated and the abdomen closed. The patient picked up rapidly but showed signs of relapsing, and was again opened up in three months, treated with saline and oxygen and closed. This patient is to-day apparently in perfect health and is steadily gaining in weight.

CASE 3.—Mrs. C. was brought to my office for examination, which revealed the following: A tubercular lesion at the right apex which was not very active. Some fluid in the right pleural cavity and ascites of considerable quantity. The bowels had been very loose, moving eight or ten times a day. This patient was in a very bad condition and I advised against operation, but they persisted and at last I consented. In making the incision I came upon a large tubercular mass in the parietal peritoneum involving a coil of intestines. I went in beside this mass and ascites amounting to about 1,000 cc. of a citron color was drained. Caseating masses, tubercles of all sizes and ages were found. Abdomen flushed as before and closed. Diarrhœa became less, temperature dropped, and patient was considerably improved in a fortnight; was discharged from the hospital and went to her home some twenty miles away. Six weeks after was taken with severe abdominal pains and died in about six hours, probably of a perforation. This case shows what may be done in apparently hopeless cases.

DISCUSSION.

DR. J. D. ELLIOTT, Philadelphia: The commonest conditions that we have found in tuberculosis of the peritoneum are hydrocele and hernia—a congenital hydrocele in which the opening was never closed entirely. The cases showed absolute evidence, either at that time or later, of tuberculosis affecting the pleura or lung.

One other interesting point is that we have two cases in which the diagnosis was very difficult. Both cases were in young girls. They were at first thought to be tubercular peritonitis; but afterwards there was found an enormous ovarian cyst in each case, completely filling the abdomen. I think that this possibility is worth bearing in mind.

DR. BERLINGHOF: I should like to ask whether, in opening the abdomen for lymphatic nodules, Dr. Replogle has ever used carbolic acid injection or not. Some years ago I did it, in an almost hopeless case. I operated, as an experiment, and injected carbolic acid. I got a nurse to prepare approximately a twenty per cent. solution of carbolic acid in emulsion, and injected as many of these nodules as were in the field. I then closed the abdomen. For the first eight hours, we expected the patient to die. Very much to our surprise, the temperature went down and the patient convalesced in four or five weeks. She had quite a little peritonitis present for six or eight days. Then that subsided and cleared up, and the patient was discharged. The next spring or fall, however, I was called again to see her. She had a cough, but no abdominal symptoms were present; and later she died of tuberculosis of the lungs.

D'ESPINE'S SIGN.—Henry Farnom Stoll M.D., in a paper on The Diagnostic Significance of D'Espine's Sign (*Amer. Jour. Dis. of Child.* Vol. 10, No. 3, p. 183) summarizes as follows:

Whispered bronchophony in the interscapular space (D'Espine's sign) is indicative of a pathologic process at the hilum of the lung. This may be due to enlarged glands the result of malignancy, leukemia, Hodgkin's disease, syphilis or any infectious disease of the lungs. I have also seen it several times in aortic aneurism. Its presence in the delicate child is exceedingly suggestive of tuberculous involvement of the tracheobronchial glands.

Occasionally enlargement of the bronchial glands is present when there is no change in the whispered voice. In old people in whom the usual physical signs of pulmonary tuberculosis are sometimes exceedingly difficult to elicit the character of the whispered voice in the interscapular space should always be ascertained, as a well-marked D'Espine sign speaks for tuberculosis rather than for chronic bronchitis or emphysema.

The diagnosis of clinical tuberculosis, however, rests on the sum total of our physical signs and symptoms, not on one isolated sign.

ON "GETTING SETTLED."

BY

O. S. HAINES, M.D.

(A talk before the Washington Homœopathic Society).

WELL; I see some of the homœopaths are still discussing the old question. And how they must love the dear old theme. Why, I remember it well in the old days when, as a medical student, I used to sit timidly in the last row of seats at the county society meetings down at the old alma mater. The wise old gray heads who discussed it vociferously in 1880, have almost all passed over the great divide and are now out of sight. But the great question looks as young as ever. They did not decide it, their forbears did not decide it. I wonder whether we shall be able to settle it? Sometimes I don't think we shall, and it would still be great fun to listen to its discussion only that many of us are tired of it and its discussion sometimes makes enemies of good friends. I mean the awfully important question:—"Is it better to treat all medical cases, surgically; or all surgical cases, medically?" Is the medical man a trifler who loves to flirt with death; or is the surgeon merely a "butter-in" who loves to muss up people and things generally without the slightest necessity? It seems to me that the real reason for the existence of both doctors and surgeons today, is that this great question has not yet been decided. When you come to think how much time we have spent in its discussion, you will see how important it must be and you will understand why I bring it up for settlement right here in Washington where so much is decided and undecided. And we shall settle it; or, at least I shall settle it for myself, and I hope you will settle it for yourselves tonight.

Whenever I go to a large medical meeting, I expect to carry home with me two sentiments at least; and have seldom been disappointed. First we expect that some medical man will give us this sentiment:—"My friends, I have been in the practice of medicine for nearly fifty years; and, I can say with all candor that I have never as yet seen a case of appendiceal inflammation in which operation was necessary." Secondly:—I expect from some grave and frowning surgeon this sentiment:—"Better far it is to open fifty bellies unnecessarily; than to fail

to open the one that urgently needs it." If we do not get exactly these two sentiments, we can count on something just as good as these.

Lately, an old school friend told me that this same question frequently came up for discussion in his societies, so you see it is, after all, not strictly a homœopathic subject. Perhaps some of this audience are saying to themselves:—"This is ridiculous, why does he not talk sense." I sincerely hope you are, for that would be a sign that *you* have already gotten settled. That you have reached that stage of perfection in your medical careers in which you really can tell a medical case from a surgical case when you see them. That is my topic tonight—"getting settled," by which is meant, in short, equipped with a mental stabilisator; so that one's equilibrium may always be preserved and so that one does not invite disaster every time the going becomes hazardous. If there are men in our profession who have not yet this great gift and who cannot really tell whether a given case needs medical advice or surgical advice, it is the misfortune of the public that such men selected so serious a life work as medicine. Monuments will be erected in honor of the accomplishments of such men but they will not themselves repose beneath them.

I should say that the highest type of fitness in the medical man is shown by the desire and the ability to accurately define the therapeutic needs of every case just as quickly as that can be accomplished. This simple thing is the real secret of success in all therapeutic endeavor, and its possession marks the unusual physician. Some men have the ability to diagnose organic lesions quickly and accurately, some men have the ability to write prescriptions which even their fellow practitioners cannot understand, some men can find the *similimum* for every case in a very short time; and, some men have the ability to cut anywhere and anyhow, with such skill that they can never be held accountable no matter what happens. But you seldom find all of these accomplishments combined in one man. Most of us have a weak spot in our armor; and our fight with disease and death is bound, sometimes, to be an unequal contest. The therapeutic needs of some cases are bound to be needs which we cannot personally supply.

But the willingness and the ability to recognize and define accurately the therapeutic needs of every case, and to meet these needs is something which every one of us may have if

we wish. I place this accomplishment far above any one of the single accomplishments which have been named. Far above the ability to prescribe or to cut; far above the ability to diagnose or to find the similitum.

The man who feels that his own ability and equipment are all sufficient for the fight against disease is a boaster. If I tell you of fifty cases of otitis media, for example, in which nothing was needed but the single internal remedy, I may be stating a fact. But when I use such a fact to prove a theory, it is nothing but flub-dub. It is equivalent to saying that because I am a skillful prescriber of medicines, all cases of otitis media that come to me, should receive the benefit of my skillful prescribing—whether they *need* that or something else.

You see the patient does not know. He thinks we are all of us so widely informed and equipped that we can handle anything. His faith in his physician is pathetic. Now this is the moment when the physician, who is really fit, sinks self, sinks individual accomplishment and everything else and thinks only of the individual needs of the case that is before him. A man told me a funny story that is quite *apropos*. His wife suffered from recurring attacks of abdominal pain. He took her to a couple of good doctors each prescribed carefully and for some time, but without good results. Then he took her to a good surgeon. The surgeon examined her carefully and said:—"Why, she has a chronic appendicitis, we will soon cure all her troubles; bring her next week to the hospital." The man was afraid of an operation (he only had one wife), so he took her to another good surgeon. This surgeon examined her carefully and said:—"Why, your wife does not need any operation." Then the man got angry and said:—"Now I am going to find out just what ails my wife, myself. "So he had her urine examined at a laboratory and then he had her radiographed. He said I want to see myself some pictures of her insides. And sure enough one of the plates showed a great collection of stones in the gall bladder. So then he took her to still another surgeon and asked him to cut out the gall-stones. But the man tells all his friends:—"If you get anything the matter with you, first find out for yourself just what it is; and then tell some doctor what to do. The doctors' plan is to do it first, and find out what it is afterwards."

I told this man that he was wrong, that his one fact did not prove his theory. But he seemed to think that he had

heard of many such facts. Now, gentlemen, it is barely possible that we engage in some discussions which do not act as stimuli to greater effort, but act rather as dampers on ambition, enthusiasm, and all the human emotions that make for efficiency. Let us "get settled." The problems that concern our school and all schools of medicine are the problems of today, not the problems of prehistoric medicine. These problems must contain an appeal to twentieth century understanding. How wonderfully complex is the construction of this medical world of ours. Its therapeutic system is built of so many correlated parts, every one of which fits—if it is in its right place; but only there. You cannot put the medical man into the surgeon's place, nor *vice-versa*. The pathologist, the bacteriologist, the chemist, the laboratory worker, the gynecologist, the obstetrician; all fit into their own places and the result is beautiful. One supports his neighbor and all are interdependent. We should fall to pieces if we lost any of our parts.

And so what we shall do for a sick man, must depend entirely upon his needs. We do not possess any method or procedure that is of universal applicability or that is infallible.

Take for example the method of similia. Within its distinctive sphere, nothing that you can mention approaches the similitum in point of actual curative efficiency. But outside of its sphere, it becomes one of the many measures which may help or which may not help.

When we prescribe the similitum for any case of illness, we must also be sure to ascertain whether the therapeutic needs of that case will be satisfactorily taken care of by an internal medicine. We must be sure that the case does not have some therapeutic needs which an internal remedy cannot meet. And this inquiry must be made a part of our regular case routine, a part of our bedside technique.

In every one of us who is fully alive there is a tremendous urge for perfection in our professional work. It is born of the joy of conquest and the earnest desire to do everything that can be done for suffering humanity. The average physician is a humanitarian as well as a hunter. He loves to pursue, corner and conquer disease and the gratitude of a thankful patient fills his heart with joy unspeakable. His errors then are generally due to faulty technique. They are sins of omission. The failure to thoroughly define the therapeutic needs of a case before adjusting its therapeutics is one of these.

CONGENITAL OCCLUSION OF THE POSTERIOR NARES WITH REPORT OF A CASE.*

BY

JOSEPH V. F. CLAY, M.D., PHILADELPHIA.

THIS condition was recognized as early as 1830 when Otto described the first recorded case. Later other cases were reported but to Emmeret belongs the credit of observing in 1854 the first case in the living. Richardson in 1914 reported a case which he observed in an infant a few hours old and this represents perhaps the earliest diagnosis in a living subject. Many other cases have been observed and undoubtedly the condition is not so rare as statistics would lead us to believe. The reason for this will be brought out in a consideration of the symptomatology.

Congenital occlusion of the nares may occur as a bony, cartilaginous or membranous partition placed in the nasal choanæ occupying a position about a millimeter anterior to the posterior edge of the hard palate. It does occur in the anterior nares but this type is more rare. The obstruction may be complete, extending from the hard palate to the body of the sphenoid and from the vertical plates of the palate bones to the septum: or it may be incomplete, being perforated by small openings, or through occupying the lower or upper positions of the nasal choanæ. It may be unilateral but the bilateral is of more frequent occurrence. Hocheim observed that in bony occlusion the bone corresponded very closely to that of the palate bone.

The reason for the occurrence of this congenital abnormality has not been definitely determined hence various theories are advanced. Luska is of the opinion that it occurs as a result of an upward and backward growth of the horizontal plate of the palate bone. Kundrat believes it is due to an ingrowth of the vertical plates of the palate bones. Hopmann considered it the result of extreme asymmetry of the nasal choanæ. Bitot found sutures in the bone and considered it an independent bone.

Richardson has given a very excellent description of the symptomatology and states that he believes that the condition is less rare than ordinarily supposed and that cases unrecog-

*Reported at January meeting of The Clinico Pathological Society.

nized at birth die as a result of obstruction to respiration, these cases are classed under the general head of asphyxia neonatorum. He states that a child born with complete nasal obstruction is unable to breathe since mouth breathing is an acquired habit; hence through lack of air the child becomes cyanotic and cries. Crying makes mouth breathing in the infant possible thus relieving the cyanosis. As soon as the child gets a supply of air it ceases to cry when again cyanosis occurs. If the child does not acquire mouth breathing it suffocates. In the case reported by Richardson mouth breathing was established by relays of nurses who held the lips and jaws apart. A very useful test when congenital occlusion of the nares is suspected is to lay the subject upon its back and drop a fluid in the nostril. If occlusion is present, the fluid not finding an outlet posteriorly will over-flow the nostril as soon as the cavity is filled.

When the subject comes under observation in adult life nasal respiration is absent if the occlusion is complete, partial if the obstruction is incomplete. It will be observed that if the patient cries, the tears find their way into the nose and out of the anterior nares. The sense of smell is absent if the occlusion is complete. The hearing is usually deficient due to the improper aeration of the middle ear. The voice is altered possessing the so-called twang. The nasal chambers are usually wide and contain large masses of glary mucous. The mucous membrane is polypoid.

In order to overcome this malformation, surgical intervention is required and the success of this depends upon getting an opening sufficiently large to prevent bridging over with granulating tissue.

The case we wish to report is that of a young female, age seventeen years, of Jewish parentage. The parents of this patient born in Russia are living and well. There are three sisters and two brothers living and well and none of these have any deformities or any nose or throat trouble. The patient is the youngest child of the family and at time of birth had considerable difficulty in breathing, and it was almost impossible for the child to nurse because she could not nurse and breathe at same time. The doctors in attendance at that time told the parents that the child was suffering from "baby consumption." The patient states that she could never breathe through the nose and the hearing has always been dull. Her

progress in school was very poor and she was regarded as a backward child. The patient has never known the sense of smell. Four years ago she was operated for the removal of tonsils and adenoids.

Examination showed absolute obstruction to nasal breathing and both nostrils filled with masses of glary mucous. The right nostril presented very small but greatly arched turbinates covered with polypoid mucosa. The nasal septum inclined to the left, presenting a concavity on the right side. The left nostril presented small turbinates. At a depth of two and three-fourths inches in either nostril a probe encountered a bony obstruction. Post nasal examination showed free, small post nasal space with a wall extending from the hard palate to the body of the sphenoid and from the extreme lateral limits of the nasal chambers. Examination of the ears revealed dull and retracted drums and the functional tests showed a reduction in hearing acuity due to a lesion in the conducting apparatus.

Operation: Under ether narcosis digital examination revealed a diminutive post nasal space and nasal choanæ posteriorly. A bony obstruction was found extending from a point about one-fourth of an inch inside the bony nasal cavity from the hard palate to the body of the sphenoid and extending completely across the nasal choanæ. A trephine opening was made in the bone with chisel and mallet and the opening enlarged with a curette. The bone was cancellated in structure. One week after the operation the patient reported, jubilant over the fact that she now had a sense of smell and that she could breathe with her mouth closed and empty the nose in the natural manner when necessary. From time to time it has been necessary to curette granulations from the edges of the bony wound, but this is done under a local anæsthetic and with little distress to the patient.

TO DESTROY ODOR OF LYSOL OR IODOFORM.—To remove the odor of lysol or iodoform from the hands, rub them thoroughly with ground mustard. Moisten the hands with cold water, place a small quantity of dry mustard in the palm, rub it over the hands, and wash off with soap and water. The odor can be removed from utensils in the same way, with the exception that the paste should be allowed to remain for several hours.—*Agnes A. Gamm in The Nurse.*

STOVAIN, A SPINAL ANESTHETIC.

BY

JAMES G. SPACKMAN, WILMINGTON, DEL.

STOVAIN, or spinal anesthesia, is more properly called a nerve root anesthesia, as its action is directly dependent upon its ability to block, partially or completely the afferent and efferent nerve roots as they leave the spinal cord.

For our present knowledge of its action, indications and contra-indications, we are indebted to Dr. W. Babcock, of Philadelphia, whose use of this anesthetic in over 5,000 cases has made him the authority.

The preparation most satisfactory and in common use at the present time is a .5 per cent. diffusible solution. It is clear, colorless and of a specific gravity less than 1.000. It is acid in reaction and is quickly precipitated upon contact with an alkaline medium. It is more stable than cocaine, a more powerful anesthetic and less than one-third as toxic. It is prepared by Morgan & Co., of Philadelphia, in sterile two centimeter ampules.

ACTION.

Stovain lowers blood pressure, increases peristalsis, diminishes the lumen of the intestines by action on the inhibitory innervation. It causes loss of epicritic sense, sensory and motor paralysis, marked relaxation of muscles and sphincter ani. It rises after injection, being of lighter specific gravity than the cerebral spinal fluid, and would reach the upper dorsal region in about two minutes. It causes death by cardiac and respiratory paralysis.

The needle used is of irido-platinum, about seven centimeters long and one millimeter or less in diameter. It is fitted with a stylet and has a finely beveled point. It is made to fit a two centimeter ground glass syringe of the Luer type, which is the one used for injection.

TECHNIQUE.

The patient is prepared by having the back thoroughly cleaned, all hairs removed and painted with a five per cent. solution

of iodine, after which sterile dressings are applied. One hour before the time set for operation, morphine, grs. 1-6 and scopolamine, grs. 1-100 are given hypodermatically. This injection may be repeated with or without the scopolamine, depending upon the condition of the patient. Two injections of both may cause deliriousness, semi-consciousness or amnesia lasting several hours. The eyes are then bandaged with a double ocular bandage and cotton placed in the ears.

The injection may be made either in the sitting or prone position, depending upon the condition of the patient. The former is preferable if possible.

If the upper abdomen is the site of operation, the first lumbar interspace is selected. If the lower, the second. The desired interspace may be selected by inspection in thin subjects. The seventh cervical and twelfth thoracic spines being the most prominent. The interspace may also be found by placing a towel transversely across the crests of the ilium. This line crosses the fourth lumbar spine or interspace. By counting upward the site for injection is reached. The needle is directed at the middle of the interspace, one or two millimeters to either side of the median line, to avoid the small sub-dural plexus of veins, and at right angles to the longitudinal plane of the back. After reaching the dense resistance of the ligamentum subclavum the stylet may be removed. The needle is now passed forward with caution a millimeter at a time until the dura is entered. This may be with an audible click, and the needle is felt to jump slightly forward. A free flow of cerebral spinal fluid should follow, if not, rotate the needle slowly. Do not aspirate or do not inject unless a free flow of cerebral spinal fluid is obtained. After fixing syringe to needle the positive pressure of the cerebral spinal fluid will force the plunger of the syringe outward. This should be repeated two or three times to produce a thorough mixing, which causes a better diffusion after injection.

The dosage is from one to two centimeters, according to the size, weight, and general condition of the patient. Immediately after injection, the patient is put in the prone position with a sterile towel over puncture. An assistant who is perfectly familiar with the first symptoms of cardiac and respiratory depression sits at the head. The operation may begin in two to three minutes.

Cardiac failure is treated by the injection intravenously, of

a two-centimeter solution composed of caffein citrate, grs. 5; strychnia sulphate, grs. 1-15; adrenalin 1-10,000, or by infusion of normal saline containing ten drops to the pint of 1-10,000 adrenalin.

Respiratory failure is treated by manual or artificial respiration, pulmotor, lungmotor, etc. If symptoms of high anesthesia should follow, lower head and shoulders at once.

CONTRA-INDICATIONS.

(1) Low blood pressure; (2) extreme shock or debility; (3) large abdominal tumors which may interfere with free respiratory movements; (4) cardiac dyspnoea which may prevent the patient from assuming the prone position.

ADVANTAGES.

(1) Lowers blood pressure; (2) lessens hemorrhage; (3) marked muscular relaxation; (4) no pulmonary or renal irritation; (5) less post-operative unpleasantness.

DISADVANTAGES.

(1) Mortality, 1-500; (2) difficult technique; (3) inability to control the anesthetic after injection; (4) frequency of post-operative headache, backache and abducens palsy less frequent.

CONCLUSIONS.

(1) That stovain will never be in common use on account of difficulty of administration; (2) that its use can hardly be justified in cases with no marked contra-indications to ether, (safest of all anesthetics, mortality 1-50,000, Mayo clinic); (3) that in competent hands, in selected cases it is preferable to an anesthetic which causes pulmonary irritation and raises blood pressure, as would ether in cases of pulmonary tuberculosis, pleurisy and cardio-renal disease.

PUBLIC HYGIENE.

BY

WALTER S. CORNELL, M.D.

Chief Medical Inspector, Public Schools, Philadelphia, Pa.

(Abstract of an address delivered before the Hahnemannian Institute).

THE first strong point that Dr. Cornell emphasized was the ease with which disease can be spread in congested communities, which he likened to a great number of trees in an orchard, or to a large number of chickens on a farm. As he says, if you plant three thousand trees together, the first thing you are warned against is disease; and in the same way, if you are raising five or six chickens you don't have to worry about parasites; but put a lot of them together, and if the houses aren't spick and span there is not very much chance of raising chickens. All of this applies in the same way to human beings.

The school age is the time when the majority of contagious diseases are contracted, such as mumps, measles, and diphtheria, and in the future this is the time of life in which most care and precaution will be taken. The likely result of continued poor air, poor housing conditions and the like is tuberculosis.

Almost all of the defects of the human body during the school age fall into one of the following groups: Eye, Nose, Throat, Ear, Teeth, Nutrition, Nervous System, Skeleton, Skin, Speech, Mentality.

According to Dr. Cornell, one of the great troubles with medical teaching today, as in former days, is the manner in which the specialist deals with his subject. The student is taught all about the diseases which menace the middle-aged man, taught how to diagnose them and their relief, instead of starting at the beginning and curing the defects in children from which those ailments originate. Specialists always start with the assumption that this man had this or that; if, instead, the man who teaches the ear would say that nine-tenths of all diseases of the ear come from catarrh of the nose, we would then be in a position to rid the race of diseases of the ear, and thirty years from now there would not be one-fifth of the deafness which we have today. Going back to babyhood, ex-

clusive of disease inherited, we find, if anything wrong at all, just two things: poor nutrition or ocular error.

The first, poor nutrition when the child is young, and due to the food not being of the right sort, leads to marasmus, rickets, and scurvy; as the child grows up and the poor nutrition continues, there are further evidenced four things: adenoids, diseased large tonsils, skin diseases, and yet poorer nutrition. Of these, probably the adenoids and diseases of the large tonsils are the seat of most of the later troubles.

Adenoids, Dr. Cornell stated, in time, and under conditions which exist in the poorer districts, will effect a change in the shape of the roof of the mouth crowding the teeth together, and causing them to develop irregularly; further, these same adenoids will develop catarrhal deafness, frequent sore throats, and stoop-shoulders. Frequent sore throats make the best culture media for diphtheria, tonsillitis, acute rheumatism and valvular heart disease. And because the teeth are irregular they will be more likely to decay for two reasons: one that because of poor nutrition the enamel is thin; and the other that normally the teeth of the upper and lower jaws fit into one another. This, of course, makes for further mal-nutrition. From the stoop-shoulderiness and deafness flat chests result, with the accompanying insufficient chest capacity, predisposing the child to tuberculosis, which annually carries off in Philadelphia alone three thousand people.

The second, ocular error, is in most cases far-sightedness, or hypermetropia. This is the usual cause of internal squint or crossed-eye. Headaches and nerve strain are common results. Myopia or near-sightedness is less frequent, but usually causes marked stoop-shoulderiness.

These things are beginning to show themselves by the number of articles appearing in the popular magazines. Patients are learning rapidly about preventative medicine, and there will come the time when the community in general will hire the physician to keep them well, just as one would hire a man to keep his orchard free from disease. Even in the face of many violent protests of the physicians themselves, a law has been put into effect in England providing free medical service for those who wish it. Today in New York City six hundred thousand dollars are spent yearly for child hygiene alone, and this with a decreasing infant mortality rate of from 130 per

thousand to 95 per thousand, with a saving therefore of one-quarter of the babies that formerly died.

These are facts that we all must bear in mind, for they show the trend of the times. And lastly, just four things constitute the formula for health: Rest, Fresh Air, Good Food, and Exercise; with these true health will be constant.

UNITY.

BY

MR. GEORGE W. ELKINS.

Member of the Board of Trustees of the Hahnemann Medical College and Hospital.

An address delivered before the Homœopathic Medical Society of German town, on Hahnemann College night, Jan. 17, 1916.

Mr. President and Gentlemen:

I HAVE many times consulted with doctors but this is the first time doctors have ever consulted me. As I rise in the presence of this scientific body of men, I can well realize how "Rip Van Winkle" felt when he met the Spirits of the Catskill Mountains. There is this great difference however. Rip was confronted by the mysterious gnomes of the mountains, while I am in the hands of my friends. Your President asked me to speak briefly on the subject of unity. The subject is a far reaching one. To begin with, if it had not been for unity we would have had no United States and the result of our unity makes me feel that we might well present our motto of E Pluribus Unum to the country south of us where a bloody war might have been avoided had they dwelt in harmonious unity, as we have done since our Civil War, and that too might have been avoided had we had unity in our country, but I presume the larger field is not the one I am to speak about. I assume it was intended I should speak of unity, as it applies to the practical every day life, in which I have had some experience.

Whatever measure of success one has is due largely to three things: unity, tenacity and humor. They are the Faith, Hope and Charity of the practical in life. Unity represents singleness of purpose and organization; tenacity the power to hold

on until the end is accomplished, no matter what obstacles arise; and humor is that faculty which carries with it optimism, for there was never a humorist who was not an optimist. It is difficult for me to separate these attributes of success and determine which of the three is most important. It is the unity of all of them—the single purpose of the combination which makes for success. After all, the elements that make successful men are the same, whether in professional or business life, and in the last analysis you will find the factors you have to deal with are the three I first mentioned. To bring this closer to your point of view let me illustrate by taking the case of a surgeon who is about to perform a major operation. He has associated with him a doctor to give the anæsthetic, perhaps an assistant surgeon, the family doctor and two or three nurses. Here we have combination ready for work, a harmonious unity, and if it is at all possible they will be successful. It is just the same with a business man or the general in the army, each must have a perfect organization, united and harmonious and striving for success.

My experience has been in connection with corporate interests, I have always been on the firing line whether as officer or private and I want to tell you gentlemen the greatest pleasure I ever derived in life was when I was fighting the hardest in my small way and I sometimes got badly scarred. It wasn't all peaches and cream and it will not be with you, but when you know you are standing side by side with your fellows who are true to the cause you are fighting for, there is a unity that sends the red corpuscles through the body and is bound to lead to success.

We must have unity in corporations whether they be commercial or otherwise and we must also have tenacity of purpose. These are fundamental. When we find a leader who can organize a corporation by consolidating a number of atoms into a concrete body and so provide for its life that no malignant growth, like discord creeps in, or if we select a man to reorganize a corporation he must be one who can by his ability surround himself with a harmonious organization; then we are getting as near to the ideal as it is possible; but when you find a lack of harmony or distrust, or an element that has in mind only self advancement in an organization, cut it out, as you would a cancer, otherwise it will grow and spread over the entire body and paralyze the functions of any corporation on

earth. Generally we find discord is started in some secretive way and frequently is not discovered until it becomes a power to be reckoned with. To those who are dissatisfied let me say it is better, a thousand times, to come out in the open and settle your troubles than to carry them around to strike an enemy in the dark. If we could just remember the words of Shakespeare and apply them to ourselves:

'Tis better to leave undone, than by our deed
Acquire too high a fame when him we serve's away.

Let every man take this to himself and not to his neighbor. If you do not harmonize with your fellows and cannot—get out as soon as you can. A good healthy growth in a small institution is far better than a large institution in which discord exists. It does not follow that we must all agree. One man differs from another, as he should, for it is only by seeing things from a different angle that we get a consensus of opinion; but the majority as a rule is right, and that's what makes public opinion the greatest factor in the universe. The minority must give way and do so gracefully. It is no disgrace not to be with the majority, but it is only a great man who surrenders his personal point of view and does so with a smile. Professional men as a rule are not so broad-minded as business men, because they have not had the same kind of training. To go out into the world and meet its rebuffs; to unravel the characters of men and when you get to the core to find deception; to meet destructive competition in which you see nothing but ruination; and to overcome these and balance them with friendships as loyal as any ever known to man; to find men who are ever faithful and honest, whose word is better than any bond, gives one an experience that grinds off the rough edges and makes it easier to concede that after all one may be wrong. One generally is if the majority thinks so. Unity is the foundation of success. If the right superstructure follows, the result is a monument of towering strength to the everlasting fame of those who build it.

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EDITORIAL

THE PATIENT OF MODERATE MEANS.

THE problem of adequate care for the patient of moderate means suffering from some disease requiring special surgical or diagnostic ability is fast becoming an acute one. The poor can secure the necessary attention in almost any up-to-date hospital without expense, and the rich are amply able to pay one or more experts to determine the nature of their ailments or to administer the proper treatment. Persons of moderate means, however, who do not wish to be treated as paupers and are unable to pay for expert opinions, are, to a large extent, deprived of many of the most valuable procedures of modern scientific medicine. Various plans have been suggested to remedy this condition. Some are convinced that it is the result of specializing and they would advocate doing away with specialists in the various branches of medicine and surgery. Those who hold this view fail to realize the fact that specialism has grown up because of the increasing breadth of medical knowledge, and also because of the invention and development of special diagnostic and therapeutic instruments. To ask that any one man should familiarize himself with the entire field of medicine and with all the special instruments of precision, is to demand the impossible. Many of these instruments, the cystoscope for example, requires months or even years of constant practice in order to attain a high degree of efficiency in its use. If the physician started at the time of his graduation from the medical school to perfect himself in the use of all valuable instruments of precision he would be an old man before he had gotten half way through the list. What then shall we say? Shall we throw into the dump heap instruments and methods that are indispensable to accurate diagnosis and treatment because they are beyond the scope of any one man! There are few we believe who would accept this solution of the problem as the value of the methods referred to are too great to be dismissed on account of their cost.

In our judgment part of the difficulty lies in the fact that we

have too many "limited practitioners." Some of these men call themselves "specialists" and some do not. No matter by what name we call them however, they are characterized by the fact that their knowledge of medicine embraces such a microscopic portion of the medical art, that they are able, without the assistance of one or several of their conferees to care for but few of the patients who consult them. We see no reason for complaint against the men who have attained an unusual degree of skill and experience in certain departments of medical work; but, we are inclined to suggest that limiting one's knowledge of medicine to the degree that it has been carried by some, not only limits the usefulness of the doctor as a medical man but entails unnecessary economic loss upon his patients.

Another source of heavy expense to patients of moderate means is the private room in our hospitals. In many of our institutions, the person who does not care to go in the public ward is faced with the problem of paying from four to six dollars a day for a private room and four to five dollars a day in addition when a private nurse is necessary. This is not the fault of the hospitals and we have no intention or desire to criticize the management of our hospitals in this respect. If the problem is to be solved however, some method must be devised to take care of the patient who is able to pay a moderate fee for a room and nurse but who cannot long endure an expense of six to ten dollars a day. From a sociological standpoint, people of this class, on the whole, constitute not only the largest but probably the most useful part of our population. Many such persons will suffer great distress and at times do without medical care because they are unwilling to be pauperized or to saddle themselves with debt in order to meet the expenses of hospital treatment.

G. H. W.

THE NATURE OF MEDICINAL PETROLEUM OILS.

PETROLEUM oils have come to occupy an important place in the treatment of constipation and various forms of intestinal stasis during the last few years. When first introduced the claim was made that the preparations made from Russian oils were superior to those of American origin on account of the fact that the Russian oils consisted chiefly of naphthene hydro-

carbons, whereas American oils consist chiefly of hydro-carbons of the methane or paraffin series. Since the onset of the European war, pharmacists have turned their attention to preparing petroleum oils suitable for therapeutic purposes from American sources and the conclusion reached by unprejudiced investigators is that, there is no essential difference in the therapeutic value of the Russian and American oils.

As to the chemical composition of American petroleum oils, it has been shown that quite a number of them consist almost entirely of hydrocarbons of the naphthene series. Some of them contain a trace of tarry matter in solution which suffices to give the oil a yellowish tinge and frequently a bad taste. Filtration through fuller's earth or distillation by superheated steam, however, is sufficient to remove the foreign substance and furnish an oil that is both colorless and tasteless. The objection to American oils on grounds that they contain paraffin, is generally considered to be unfounded. Most of the oils from the Gulf region contain no paraffin whatever and even the Pennsylvania oils are practically free from paraffin after the refining process is completed.

A number of simple tests have been devised for determining the quality of petroleum oils. According to Brooks the most important tests are the taste, the keeping quality and the specific gravity. If foreign substances are present to any appreciable extent, the difference in the taste of the oil can be readily detected. This can be accentuated by masticating the oil with ordinary wheat bread. The keeping quality of an oil is an important test of its purity. Inferior oils acquire an objectionable taste and become light yellow in color within ten days after exposure to sunlight in loosely stoppered bottles. As to specific gravity, it is recommended that an oil having a specific gravity of 0.885 be used for internal use, as oils of lower specific gravity are likely to cause leakage from the rectum. The heavier oils having greater viscosity are free from this objection.

G. H. W.

THE HOMŒOPATHIC MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

THESE are days of kaleidoscopic changes in therapeutics and like days of old people will reach for the proverbial "last straw"

just as much today as they ever did until science and experience teach them the falsity or truth thereof. The changes are taking place with greater speed and the more perfect our knowledge becomes to analyze and discover the *modus operandi* of our physiological laws and the way in which the different therapeutic agents affect them.

The gross materialistic idea still prevails. A good many patients, and as well physicians, cannot see any good in any therapeutic agent that they cannot feel, handle or taste and consequently demand heroic treatment when your own experience and better sense tells you that it is the last straw that dispatches your patient beyond recovery. Different therapeutic agents gain popularity for the time being and again slip into oblivion. Radium is having its day at present and is floating on the billows of a high tide, but the warning signal of distress is beginning to show itself and the recession has already begun.

A therapeutic panacea for the different ills to which our flesh is heir has not been found and never will. We are obliged to work for all we get. There is no easy road to travel that leads to fame in therapeutics. The individual characteristics of the patient must always furnish your data on which to base your prescription and the physician who can best solicit and bring to light the symptoms that are curable and knows what the curative action of drugs is, must of necessity be entitled to a higher eminence in the prescribing of drugs. The Law of Similars has stood that test for a century with all the possible opposition that could be placed in the way, yet it has not lost in prestige, which is a good deal more than can be said for other methods of prescribing. It cannot be denied that we have something that is worth while to cling to and our faith should get stronger as we watch the workings of the law. The dose is a secondary consideration. Let every true physician use the dose from which he gets the best results whether that is a material dose of the tincture or the infinitesimal of a high potency.

Let us not get weary in well doing to preserve, safeguard and promote this specific heritage that has been handed down to us. In order to do this we must organize more efficiently and stand together on this one idea of promulgating the Law of Homœopathic Therapeutics until it is universally acknowledged by the medical profession.

J. M. HEIMBACH, M.D., *President.*

GLEANINGS

STUDIES IN INFANT METABOLISM AND NUTRITION.—Angelia M. Courtney and Helen L. Fales have the following to say regarding the Composition and Preparation of Protein Milk (Eiweiss milch) (*Amer. Jour. Dis. of Ch.* Vol. 10, No. 3, p. 172) A variation in the ingredients used and also the methods used make noteworthy differences in the composition of the product. A simplification and standardization of the method of preparation seems therefore desirable. A careful study was undertaken to ascertain the effect of the different steps of the preparation on the final product and to discover the explanation of these variations—the routine procedure followed in the hospital diet kitchen was as follows:

A quantity of whole milk, usually eight or ten liters, was heated to about 100 F. and into it was gently stirred for a moment one junket tablet, dissolved in a small amount of water, for each liter of milk. The milk was left standing, covered, at the temperature of the room, usually about 72 F., for thirty or forty minutes. It was then poured on two thicknesses of cheese cloth, by tilting which the curd was gently rolled from side to side and the whey drained away in the course of eight or ten minutes. Water was then poured on the curd and the manipulation repeated. This washing was done twice. The curd was then placed on a fine wire sieve, fifty meshes to the inch, and rubbed through it with a metal vegetable masher, with the gradual addition of one-half liter of buttermilk to each liter of whole milk used for the curd. Enough water was then added to make the volume equal to that of the original milk.

This method of preparation showed an extraordinary variation in the fat and to overcome this the following procedure was adopted:

The whole milk is coagulated as above described. After standing for thirty minutes the coagulum is poured on a doubled piece of ordinary cheese-cloth and allowed to remain for fifteen minutes, the cloth resting on the sieve through which the curd is later to be pressed. The cheese-cloth is then gently manipulated for a few minutes to complete the removal of the whey. The curd is now washed twice, using each time about one-fifth as much water as the original amount of milk taken. The water is poured on the curd, which is then gently manipulated for two or three minutes. The curd is then transferred to the sieve and pressed through it with the gradual addition of half as much buttermilk as the volume of whole milk taken. Boiled water is then added to make the volume equal to that of the original milk used. Great care must be taken in pressing the curd through the sieve lest the fat be transformed into butter, which often adheres to the sides of the utensils or floats on the surface of the milk. This is avoided by rubbing gently in one direction, the rotary motion being almost certain to form butter. A fat determination in such a sample is manifestly unreliable. (Vide analysis 15, table 1.)

The conclusions of the study were as follows:

1. The chief variation in the composition of protein milk is in the fat. Uniformity is secured not only by the use of ingredients of uniform composition, but, what is much more important, by the exercise of great care in the handling of the curd. It should be suspended for a short time or allowed to rest for fifteen minutes on the sieve before manipulation to drain off the whey; care in pressing the curd through the sieve is also essential.

2. Since the value of protein milk is in large measure due to its low sugar content, the washing of the curd with water is a useful means of removing an additional amount of sugar.

3. When properly prepared the amount of protein in protein milk is quite constant and is usually somewhat greater than that of the original milk; it is nearly all casein.

4. If the buttermilk is added while the curd is being rubbed through the sieve, it is unnecessary to repeat this part of the process.

5. In the ash of protein milk the amount of calcium and phosphorus is slightly greater, that of sodium, potassium and chlorine is less than in whole milk, being reduced to a little more than one-half the proportion present.

6. Certain things are to be avoided in preparing protein milk: (1) stirring too much or too long while adding the rennin; (2) leaving the milk during curd formation in a cold place; (3) any unnecessary handling of the curd in straining off the whey or in washing or in pressing through the sieve; (4) subsequent heating beyond that required in feeding.

7. The composition of protein milk obtained from all our analyses when made as above described is: Fat, 3.0 to 3.50 per cent.; sugar, 1.8 to 2.0; protein, 3.60 to 4.00; ash, 0.65.

PROPHYLACTIC VACCINATION FOR VARICELLA.—During an epidemic of varicella in the Hebrew Infant Asylum N. Y. city; Sophie Rabinoff M.D., (*Arch. of Ped.* Vol. XXXII, No. 9 p. 651) tried out prophylactic vaccination—The following technique is used. The vesicle of a fresh case of varicella is used as the source of the virus. This is pierced with a "vaccination lancet" with which several superficial skin punctures are made for the purpose of vaccination, care being taken to avoid drawing blood, after making three punctures the lancet is introduced into a fresh vesicle, and further inoculations are carried out making six in all.

CONCLUSIONS

Among the group of 142 susceptible children, 114, or about 75 per cent., developed varicella. In the group of 76 vaccinated children there were only 6 cases, or about 8 per cent. of the total number. Of these 6 cases, 2 developed on the day following vaccination, 2 seven days later, 1 nine days, and the last ten days later. In other words, all the cases among the vaccinated children developed within the incubation period of the disease, which is about sixteen days.

In this epidemic the vaccinations undoubtedly limited the spread of the disease. The duration of this protection cannot at the present time be determined. However, we feel satisfied with the results of our experience

with this form of protective therapy, and recommend its employment in similar institutions as well as in selected cases in the home.

Since reading the above paper, a case of varicella developed in one of the wards of our admitting building. Vaccination was immediately performed on the entire ward of twenty children. No other case of varicella developed in this ward for six weeks, and then one other case appeared.

SOME EXPERIENCES WITH FRIEDENTHAL MILK.—Edwin A. Riesenfeld M.D., N. Y. (in *Arch. of Ped.* Vol. XXXII., No. 8, p. 590) gives his results in the use of Friedenthal milk with 21 infants observed for periods ranging from 3 to 25 weeks—Friedenthal's formula is as follows:

Skimmed milk	330 c.c.
Water	660 c.c.
Lactose	68.9 gm.
Molkerei salts	1.89 gm.
Fat (in cream) to	4.5%
The molkerei salts are composed of:	
Pot. chlorid	2 parts
Pot. phosphate	1 part
Pot. biphosphate	1 part

The calorie value of this food is 770 c.c. per liter. Cane-sugar or dextri-maltose was used instead of the lactose in the mixture as the gain was more satisfactory with this substitute. The infants ranged from two weeks to seven months of age and usually six ounces were given at a feeding. The conclusions are as follows:

(1) In Friedenthal's modification of milk we have a food that can be administered throughout infancy and without change except in the amount given.

(2) Of the 21 infants placed upon Friedenthal's milk, 19 made a steady and normal gain in weight, with an average of 4 ounces per week, infants under three months of age making the greater progress. The 2 infants who failed to gain showed a marked intolerance for the high fat and sugar content of Friedenthal's milk and could only be given any food containing low quantities of sugar and fat.

(3) Friedenthal's milk may be given throughout an acute illness without modification, the majority of children making a gain in weight during the illness.

(4) The occurrence of vomiting and poor stools is not incompatible with a gain in weight.

EDWARD LIVINGSTONE TRUDEAU.—Whenever I think of tuberculosis—I mean, of course, whenever I think of it in its broad, human relationships—I think of three men who, because of their valiant fight, not so much against the terrible disease as in the teeth of it, have always inspired me with a devoted hero-worship. These men are Robert Louis Stevenson, Henry C. Bunner, and Edward Livingstone Trudeau.

These men looked continually into the face of death with a smile on their lips. They lived cheery, busy, useful lives, albeit much of their activity was directed from a sick-bed; so that there is left to the world only the memory of their strength, and not of their weakness. Two of them,

Stevenson and Bunner, chose to ignore their arch enemy. They were both literary men. Neither in their private nor in their public writing did a single reference to their affliction escape them. They both gave to the world a genial, wholesome humor, and died, at last, with the smile on their lips.

Trudeau chose another course. He elected to make deliberate and heroic fight against the disease that attacked him, both in his own behalf and in that of others. He bravely turned his own misfortune into the occasion of a public crusade against disease and death. He has generated the modern forces of the antituberculosis campaign.

Stevenson and Bunner died several years ago. Trudeau outlived them—a tribute to the effectiveness of the warfare that he waged. Many and many a stricken man and woman could bear testimony to its effectiveness, too. Death has claimed him at last. In a sense I suppose it may be said that tuberculosis got him in the end. If the enemy can get any doubtful satisfaction out of such a questionable triumph, he is welcome to it. The verdict of the world will be that the triumph lay with Trudeau—physically, for he lived, happily and usefully, more than the average span of human life; morally, for he led the way to a final conquest of the foe. "He has fought a good fight, he has finished the course, he has kept the faith; henceforth there is laid up for him a crown of righteousness, which the righteous Judge shall give him in that day."—(*Editorial—Amer. Jour. Clin. Med.*)

PERIOD OF LIFE AT WHICH INFECTION FROM TUBERCULOSIS OCCURS MOST FREQUENTLY.—Knopf wrote letters of inquiry to well-known internists, specialists in tuberculosis and pediatrics. From statistics and impressions gathered from the replies to those letters and from the perusal of the latest literature on the subject as well as from the results of his own experience, the following conclusions are drawn: Tuberculous disease in childhood, compared with tuberculous infection, is relatively rare (36 per cent.); on the other hand, tuberculous infection is exceedingly frequent, generally speaking. The frequency of infection increases with the age of the child, and is affected by environment. Lungs and lymph nodules are primarily most frequently involved. Prenatal infection, while considered rare, is perhaps much more frequent than statistics show. Nearly all the authorities consulted united in the opinion that in order to combat tuberculosis successfully in the young and old alike, we must diminish the sources of infection in childhood. To accomplish this end, amend the federal and state laws which make it a criminal offense for a duly licensed physician in good standing to give advice concerning the means of preventing conception. All cases of open tuberculosis, particularly the pulmonary and laryngeal types, should be required by law to be reported to the health authorities who in turn should be authorized to send the patient directly or through the attending physician carefully worked out instructions to prevent infecting others. Cases which cannot be properly taken care of in the home, or when it is evident that they constitute centers of infection, should be transferred to sanatoriums, special hospitals, or at least to special wards in general hospitals.

For the pregnant tuberculous woman there should be a maternity

sanatorium or a special ward in existing maternities in which the prolonged antituberculosis treatment can be effectually carried out, and in cases in which mothers can receive such instructions as will guard their offspring from postnatal infection. In cases in which there is the slightest suspicion of tuberculous infection of the infant by the mother, the child should have a healthy wetnurse or should be bottle fed. Medically supervised country homes for poor tuberculous mothers and their children where they may remain until they can safely return to city environments, should be provided. All children under 5 years of age should be subjected annually or semiannually, to the von Pirquet test, and those who react positively and have in addition symptoms and physical signs should be placed under proper treatment. All children between 5 and 15 years of age, particularly those attending public schools, should be subjected to a careful physical examination on entering as a pupil and an annual reexamination thereafter, always accompanied by a von Pirquet test. Open-air instruction should be practiced whenever feasible. The school authorities should have the right to investigate the home of any child attending public school when the teacher or school physician thinks that underfeeding, bad sanitary home environments, or child labor at home, are responsible for a poor physical condition of the pupil which might develop into tuberculosis.

Child labor in factories, mines, canneries, stores, workshops, in the street or at home, must be abolished. There should be an obligatory examination for tuberculosis and other serious diseases of every boy or girl prior to entering college or any occupation. There should be periodical examinations for tuberculosis of all employees. For those weeded out as tuberculous or afflicted with other diseases which incapacitate them for their usual work under ordinary conditions, there should be agricultural and industrial colonies in which these semi-invalids nevertheless have an opportunity to earn a livelihood. There should be state insurance and obligatory private insurance against accident, old age, and diseases including tuberculosis for all earning less than \$1,000 per annum, so that those fearing temporary or total loss of earning capacity will not be afraid to seek proper treatment in tuberculosis institutions. We should have uniform bovine laws enforced by federal authorities in all states of the Union alike. A continued propaganda for the education of the masses along these lines. —(*Medical Record.*)

DIFFERENTIATION OF FUNCTIONAL AND ORGANIC HEART DISTURBANCES.— Braun has to pass judgment on the capacity for military service of soldiers presenting disturbances on the part of the cardiovascular system, and he expatiates on the aid afforded in differentiation by roentgenoscopy, electrocardiography and other modern methods of examination. In respect to extrasystoles, for instance, the graphic tracings permit the exact diagnosis of any tendency to heart block and thus, when this can be excluded, show that the extrasystoles are a harmless irregularity, not impairing the fitness for service. When there is a systolic murmur at the orifice of the aorta, growing louder after exertion, and the Wassermann test is positive, syphilis may be assumed without further evidence. An attack like that of angina pectoris may occur at any moment. If the man is an officer, such an attack during some military crisis might lose a battle. In a private soldier the

attack would be less liable to have more than private personal import. Neurasthenic heart disturbances may be hard to differentiate from the organic, especially when both are associated.

We are in the habit of designating neurasthenia by the organ to which the patient refers his main symptoms, as for example we speak of nervous dyspepsia, cardiac neuroses, spinal or sexual neurasthenia, etc. Braun emphasizes, however, that we must bear in mind always that neurasthenia is a general, constitutional affection, characterized by abnormal irritability and readiness to fatigue of the central nervous system. We have to distinguish in it further the purely subjective from the objectively evident physical symptoms induced by the general nervous overexcitability. Neurasthenia consequently must be judged not from the partial symptoms of the concrete case but from the general mental and psychic disposition of the individual. In estimating the import of heart disturbances, therefore, the first step is to exclude neurasthenia or, if this is present, to exclude organic disease.

Among the objective features of arrhythmia for which the neurasthenia alone is responsible are (1) the respiratory type of the arrhythmia, that is, the pulse is accelerated during inspiration while it lags during expiration. With deep breathing this becomes quite marked. (2) The radial pulse grows smaller, with or without any modification of its frequency, when light pressure is applied with the finger-tips to the heart region. As the pressure is released, the next pulse beat, sometimes the second or third, is higher, often much higher than the following beats. (3) Modification of the interval of time between the contraction of the auricle and that of the ventricle. This of course requires a graphic tracing of the venous pulse. (4) Change in the size of the area of dullness when the right lower margin of the heart is percussed. As this phenomenon is due to change in the size of the auricle, there are parallel fluctuations in the height of the auricle peak in the venous pulse tracing. Braun is now studying these four phenomena, trying to correlate them with special degrees of neurasthenia, and also with combinations of neurasthenia and various heart changes.—(*Wiener Klinische Wochenschrift, Vienna.*) *Jour. A. M. A.*

CAUSES OF HEART INSUFFICIENCY.—Vaquez' (*Archives des Maladies du Cœur, etc., Paris*) long article reviews the numerous causes which may modify the circulation beyond the power of the heart to overcome, especially with preexisting organic trouble. He cites a few clinical examples to illustrate the various types described. Acute insufficiency after extreme exertion is probably due to acute dilatation. The question whether overexertion can bring on acute dilatation is particularly important on account of legislation on workmen's compensation. It has been claimed that overexertion entailing acute dilatation merely exaggerates the phenomenon normally induced by ordinary effort. Vaquez insists, however, that this is not the case. Physical effort tends rather to reduce than to increase the size of the heart. He agrees with Raab that dilatation following physical exertion occurs only when the resisting power of the heart has been weakened by preceding infection or intoxication or an organic lesion. When angina pectoris develops suddenly after exertion, or cardiac insufficiency such as Da Costa observed in young soldiers of the Civil War, or exhaus-

tion of contractility such as Munzinger discovered in woodchoppers, syphilis or the strain of a military campaign or excessive beer drinking can usually be incriminated. Organic lesions in the left heart are particularly liable to acute insufficiency. He recently witnessed acute pulmonary edema develop in a young physician with a lesion of the aorta, perfectly compensated hitherto, after violent efforts to crank his automobile.

Errors in diet are also liable to bring on acute insufficiency of the heart, but not by solid food. An overhearted meal may cause palpitations and transient discomfort, but not actual cardiac insufficiency. This, however, can be induced by drinking large amounts of fluids. This is frequently the cause of serious mishaps in persons whose kidneys are not working properly at the time. It occurs mostly with mitral lesions and during asystolia. Reduction of the intake of fluids is an important factor in the management of such cases, and is even more indispensable with generalized lesions of the arterial system or high blood pressure with renal sclerosis. The danger from drinking too much fluid is particularly serious in these cases. It may entail sudden distention of the heart. Until physicians at watering-places learned to caution their patients not to drink too much of the waters, acute pulmonary edema was of comparatively frequent occurrence among those drinking glass after glass of the waters.

Salt is liable likewise to bring on acute pulmonary edema, especially with both heart and arterial affections, as the kidneys are usually more or less impaired in these cases. With simple valvular lesions, the immoderate use of salt may bring on the cardiac insufficiency more gradually, but in time the whole picture is presented. This may occur with the patient in bed and not exposed to physical exertion. After transient exhaustion of contractility of the left ventricle conditions may right themselves and the kidney eliminate salt as in normal conditions. But unless certain of this, the intake of salt should be regulated.

Heat and cold are not borne well by persons with unduly high blood pressure. Cerebral hemorrhage and acute dilatation of the heart, with pulmonary edema, are most common and most fatal in the winter in persons with arterial hypertension. Extreme heat, Turkish baths, are liable to elicit the first manifestations of heart disease or bring on fatal aggravation. The rapid heart action under the influence of fear or anger imposes extra work on the heart, but Vaquez remarks that cases in which emotional factors alone have brought on cardiac insufficiency are quite exceptional. He reviews, further, the extracardiac affections liable to induce insufficiency on the part of the heart. In fact, he says, there is no organ that may not influence the heart in some way. Recent research has shown infiltration of fat in the region of the bundle of His in cases of permanent bradycardia, thus confirming the assumption of Adams (1827) and Stokes (1846) that fat deposits might be responsible for the pathologically slow pulse.—*Jour. A. M. A.*

RENAL FUNCTION.—The nephritic test meal, as suggested by Hedinger and Schlayer, and elaborated by Mosenthal in this paper, has not only proved itself to be an admirable test for renal function, but also in many cases has been of great value in diagnosing cardiac, renal and other conditions. The test is a qualitative one of the mode of urinary function as

measured by the specific gravity, salt, nitrogen and water excretion in two-hourly periods during the day, and for a twelve-hour period at night. In chronic diffuse (parenchymatous) nephritis, the condition of renal function is characterized by its variability. In these instances, the results of the test meal have proved to be extremely valuable in giving an idea of the status of salt, nitrogen and water excretion, besides the picture of renal efficiency as a whole. The findings in myocardial insufficiency vary according to the activity of the heart. Distinct differences are found with myocardial decompensation and the accumulation of edema, the period of eliminating edema, and subsequently, when cardiac compensation is again fully established, it requires some time before the kidney resumes its normal activity. This intervening period is indicated by a tendency to a low, fixed specific gravity and a nocturnal polyuria. During the period of full myocardial decompensation the results of kidney activity are characteristic, the specific gravity is markedly fixed at the level of about 1.020, the salt output is diminished, that of nitrogen is high, in marked contrast to the salt, and there is oliguria. When chronic nephritis and cardiac decompensation coexist, as they so often do in hypertensive nephritis, the urine may exhibit the characteristics due to either lesion. The determining factor is probably to be found in the chronic nephritis which may or may not be so far advanced as to present an unchanging barrier to the influence of renal congestion.—*Archives of Internal Medicine*.

DIFFERENTIATION OF CEREBRAL AND CARDIAC TYPES IN VASCULAR DISEASE.—Stone urges that the determination of systolic and diastolic pressures by the auscultatory method should supplant the palpatory method. The pulse pressure measures the energy of the heart in systole in excess of the diastolic pressure. For clinical purposes it represents the load of the heart. Under normal conditions, it is approximately 50 per cent. of the diastolic pressure. Since the diastolic pressure represents the constant pressure between systoles, it is a better index of peripheral resistance and of hypertension than the systolic pressure. A sustained diastolic pressure of 105 to 110 or above signifies hypertension, irrespective of the height of the systolic pressure. The diastolic is less influenced by physiologic factors than the systolic pressure. In arterial hypertension incident to myocardial and valvular lesions, the pulse pressure and heart-load are increased as a rule, the overload factor averaging 46 per cent. in the twenty-four patients of the cardiac hypertension group.

In the cerebral hypertension group the diastolic pressure is persistently high, from 120 to 160. This group comprises the nephritic cases, so-called, with symptoms of polyuria, albumin, casts and edema. The pulse pressure is not so greatly increased, as a rule, and the heart-load percentage is within normal limits of 40 to 60 per cent. The term cardiorenal disease applied to patients with cardiac manifestations in nephritis, Sone says, is a misnomer. Cardiac symptoms are many times present in such cases but the manifestations and terminal events of vascular disease associated with disturbed renal function are more cerebral than cardiac. If any compound name is applied descriptive of the condition, the term cerebrorenal would be more approximate. The term vascular disease, however, covers the ground more completely. In acute circulatory failure due to shock, includ-

ing hemorrhage, in an individual with a strong acting heart, the diastolic pressure is decreased, while the pulse pressure is increased, since the heart is exerting all its force in an endeavor adequately to supply the periphery with blood. In circulatory failure due to cardiac dilatation or myocardial degeneration incident to acute or long continued illness, the systolic pressure falls and tends to approximate the diastolic pressure, with the result that the pulse pressure is decreased.

In acute infections a sustained pulse pressure warrants a more favorable prognosis, as a rule, than a low pulse pressure, other things being equal, although the change from normal to low pulse pressure in circulatory failure may occur rapidly. As a rule, the lower the pulse pressure, the greater the danger of circulatory failure. Measures directed to the reduction of blood pressure by diet, habits, venesection and vasodilators are usually indicated in the cerebral hypertension group because of the high diastolic pressure, but are rarely indicated in the cardiac hypertension group. The high systolic pressures in the cardiac hypertension group are compensatory measures and rest; digitalis, strophanthin, camphor or caffeine are indicated when the heart muscle shows signs of fatigue.—*Archives of Internal Medicine*.

THE QUICK DETECTION OF SPIROCHAETA PALLIDA.—Dr. W. H. S. Stalkartt, of the Royal navy, communicates to the *British Medical Journal* for December 18, 1915, a method for the speedy detection of *Treponema pallidum*, which he says is well known, although its originator is lost to fame. Doctor Stalkartt's directions are as follows:

Take a smear of blood and serum from the sore, the exudate being obtained after cleaning and rubbing or scraping the sore, or making a small incision in its margin. The sore should not previously have been treated with antiseptics, or, if it has, should be dressed for several days with a simple saline dressing.

1. Fix in one per cent. glacial acetic acid and eight per cent. formaldehyde solution. Rough dry the slide.
2. Wash in alcohol and flame off.
3. Gently heat in a five per cent. solution of tannic acid.
4. Wash in water and stain with slightly warmed ammoniated silver nitrate solution. (To a five per cent. solution of silver nitrate add ammonia solution until the precipitate first formed is just dissolved; add a few more drops of silver nitrate solution until the precipitate just reappears.)
5. Wash in distilled water and dry.

The films should be chestnut colored. If they have only become yellow the staining from the tannic acid onward should be repeated at once.

The slides must not be mounted in balsam, but examined in neutral cedar wood oil in the ordinary way. The spirochetes are very clearly demonstrated by this method.

EFFECT OF WATER INTAKE IN NEPHRITIS.—The retention of nitrogen is one of the common phenomena associated with a large percentage of the cases of nephritis observed in hospitals. Whether this retention characterizes also, in lesser degree and periodically, earlier stages of the disease is not at present clear; but this is generally assumed to be true and is held

accountable for some symptoms, whether correctly one may not assert. At those periods of nephritis when patients are forced to seek hospital aid the retention of nitrogen outside of convalescence appears to precede and lead up to either frank uremic manifestations or to the graver complications of renal disease. Furthermore, a careful study of a large number of cases by Foster and Davis disclosed many in which the metabolic disturbances seem confined to the protein economy; that is to say, the notable failure in elimination is in respect to nitrogen, and this retained nitrogen is found not only in the blood but also in the tissues. With some of these cases water metabolism is either normal or approximately normal and the total nitrogen elimination then appears to depend directly on the volume of water that passes through the kidneys. This is simply another way of stating an accepted fact; that the diseased kidney can not excrete a concentrated urine, namely, the power of concentration is impaired. If under these conditions the nitrogen of the diet be reduced to about half the normal and the fluid ingested be increased there results first a sweeping out of retained nitrogen and later normal approximations toward equilibrium. Reduction of nitrogen intake alone does not suffice, nor does the ingestion of large amounts of water if the diet nitrogen be not curtailed.—*Amer. Jour. of Medical Sciences.*

AN EASY LESSON FOR BEWILDERED MEDICAL PERSONS.—What is the real reason why practitioners in good standing and of notable abilities are not permitted to attend their patients in hospital—when such practitioners are not members of the visiting staff?

Various specious reasons are ascribed for this. None of the reasons are creditable. The arguments against permitting well equipped gentlemen to attend their patients are like the arguments against woman suffrage—there is no good reason why either consummation should not be achieved by its proponents.

What is the chief reason, and how good a reason can it be made out to be?

The men who look after the sick poor in the public wards have, as a kind of return for their charitable service, private room privileges. All private room patients, whether sent in by them or by other practitioners having no connection with the hospital, are attended by them. In this woodpile the nigger is a painfully obvious person.

Suppose all able and personally desirable practitioners were given private room privileges. Well, there are so many of them that the monopoly of the staff physicians would be utterly broken up, leaving them to their work in the public wards without special privileges on the private side.

The hospital is an aristocratic institution and a staff appointment immediately makes the appointee an aristocrat.

So there is a reason, but it is not a good reason.—(*Editorial, Medical Times.*)

THE DENTAL ASPECT OF THE RELATION OF THE ENDAMOEBIA TO PYORRHOEA ALVEOLARIS.—Price A. W.—*Surg., Gynec. and Obst.* 1916, XXII, 37.—The author points out in his article the following facts as

against the endamoebic etiology of pyorrhoea alveolaris. In studies extending over one year it was found that the presence of the endamoeba is not constant in certain typical cases. That the number of organisms vary widely at different periods, in general being much more numerous in warm weather than in cold. The organisms were not often found in certain typical cases during November, December and January, but were constantly present in the same cases during the warmer months.

At certain times all patients whether suffering from pyorrhoea or not had endamoeba present, while it was absent in a majority of the cases of the same series a week later.

That the lesion does not show any appreciable change when the organisms are present in large numbers and when they are absent. If the endamoeba is the causative factor, why does not the lesion vary with their presence and absence?

That the destruction of the endamoeba in the pus pockets after their injection with emetin is not due to the bactericidal effect of the emetin, but to an increased phagocytic power of the leukocytes.

Drs. Wright and White claim much better results from the succimide of mercury.

The author believes that when the true etiology of pyorrhoea is understood, that some of the several micro-organisms which are found in the mouth and of which little is known, because of the inability to grow them on artificial mediums; will be found to play a more important part as a causative factor than the endamoeba.

J. G. SPACKMAN

THE RADICAL OPERATION FOR CARCINOMA OF THE UTERUS.—Taylor, H. C.—*Surg., Gynec. and Obst.*, 1916, XXII, 70.—The author discusses the various means of treatment of carcinoma of the uterus. He describes the indications and contra-indications; advantages and disadvantages of the simple and radical operations.

As to the selection of the route. The majority prefer the abdominal to the vaginal. He prefers to use the vaginal where there is a large vagina and thick abdominal walls, otherwise the abdominal.

The selection of the type of operation either the simple or the radical depends upon the extent of the growth, whether limited to the uterus or involving the pelvic connective tissue. Also upon the danger to life and mutilation to the patient.

The primary mortality is higher in the radical than in the simple.

Complications are more frequent in the radical than the simple and are usually the result of the nature of the operation and the extent of the involvement.

Injury to the ureters are the result of ligation, cutting and necrosis. The result of this injury is the formation of a ureter-vaginal fistula with the escape of urine from the vagina or as some times occurs from the abdomen. This predisposes to infection of the kidney pelvis.

Bladder complications, are frequent injury to the wall or involvement by the growth. Paralysis may occur often necessitating catheterization for two to three weeks. This also predisposes to an ascending infection of the kidneys.

Haemorrhage may occur from the venous sinuses around the ureter. Haemorrhage with resulting shock is responsible for many deaths.

Infection is not greater in the radical than in the simple.

CONCLUSIONS:

For the favorable case in good general condition with no excess of fat and no pelvic extension, do the radical operation.

For limited growths with bad general conditions, the simple abdominal hysterectomy.

For inoperable cases, use radium, X-ray and cautery.

J. G. SPACKMAN

HISTOLOGIC FINDINGS IN DIPLOBACILLUS ULCER OF THE CORNEA.—In the depths of the ulcer the hyaline necrotic area described in pneumococcic ulcer was absent. This may be explained by the less virulent character of the products of metabolism of the diplobacillus. The leucocyte paths on the anterior surface of Bowman's membrane connect the superficial infiltrate of the masses of pus which it covers with the superficial network of vessels at the limbus. The deep infiltrates show similar paths leading from the deep limbal vessels. These findings in view of the accepted idea that leucocytes cannot penetrate Bowman's membrane, show that these cells have wandered from the dilated vessels. Lowenstein found the diplobacilli remarkably well preserved in the corneal tissue in contrast to the pneumococcus, which is rapidly destroyed in corneal ulcers—probably by the products of its own metabolism.—Lowenstein: *Annals of Ophthalm.*

WM. SPENCER, M. D.

PERISTALTIN AFTER LAPAROTOMY.—Flatau (Nurnberg) has made some clinical studies with Peristaltin for restoring the bowel function after abdominal section, and recommends it highly. He portrays the period of suffering which continues with varying degrees of severity and duration after operation, often associated with vomiting, and the concern which the operator has until the bowel function is restored. He reminds of the more or less unsuccessful attempts to produce discharge of foetus made with atropin, physostigmin and strychnia, and says that hormonal has practically failed because of its depressing effect upon blood pressure inducing conditions of collapse. In a series of fifty every other case was treated with peristaltin and the results arranged in chart form show the beneficial action of the drug; the same was obvious in another series of eighty cases. The author says the drug should not be reserved for the serious cases of intestinal paresis due to peritonitis from sepsis, which nothing can materially help. That operator will see the best results who practices physiological surgery and who retains unimpaired the functions of the abdominal cavity, especially of the peritoneum by careful hemostasis, by coaptation of tissues properly belonging together and by careful covering raw surfaces with peritoneum. The author uses 0.5 injected into the loose fat of the abdomen, or into the thigh or gluteal muscles. The preparation is apt to cause pain when used hypodermically.—*Monatsschr. f. Geb. u. Gyn.* Vol. 39—646.

THEODORE J. GRAMM, M.D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY DR. DONALD MACFARLAN
PHILADELPHIA

SUCCUSSION.—Over twenty-five years ago Dr. John P. Sutherland, of Boston, made some singular experiments respecting the value of succussion. In a recent conversation he told a friend of their salient features and following that interview a letter was sent the friend setting forth the doctor's work. The exact context of that communication is herewith given:

"The experiments with permanganate of potash I spoke of were made over twenty-five years ago and my records are not accessible. The main facts, however, I am very sure of and were as follows: Into ounce bottles nearly full of water I put three, four and five drops of permanganate of potash. I then shook them from two or three times to one thousand times. Those that were shaken only a few times were not shaken with as much violence as those that were shaken one thousand times. I then put them onto a window ledge where they were exposed to daylight and allowed them to stand for a month or more. I was much interested to note that at the end of a few days the permanganate in those bottles which had been shaken only a few times had practically settled,—whereas in those that were shaken one hundred and up to one thousand times retained their color throughout the month and had a good deal of color when the contents of the bottles were thrown away.

"I do not recollect how strong my tincture was, but I am quite sure I used a tincture and not crystals in my experiments.

"There was, of course, nothing so very exact in my experiments, but I wanted to demonstrate whether or not succussion would have an influence over the permanganate solubility or anything and I took the permanganate of potash to experiment with. I convinced myself that succussion would have an influence which was very apparent in my meagre experiments. I am sorry I have nothing more definite in the way of records to send you, but this, at all events, is a reply to your kind favor of recent date."

This splendid work of Sutherland calls to mind certain work recently contributed to the New York Academy of Medicine. Drs. Alexander and Bullowa affirmed before that body that: "If one examined the suspension of any fine powder with an ordinary microscope, the individual particles exhibit a slight trembling motion known as the Brownian movement. Although this movement is more marked in the case of small particles, it is not sufficient to keep them afloat, and they gradually sink out of solution. But with the ultramicroscope it has been demonstrated that with increased

subdivision (our further trituration) the motion of the subdivided particles continued to increase in speed and amplitude, until it became so vigorous and extensive that the particles no longer settle but remain permanently afloat; that is, they have now what is termed a colloidal solution. If the subdivision (our higher trituration) is proceeded with, still further, they gradually pass into the sphere of true crystalloidal solutions, wherein the particles of the dissolved (trituated) substances are reduced to molecular dimensions, or even split up into ions."

Thus we see that the microscope curiously enough vindicates all our modern concepts concerning potentiation or that inherent healing power residential in the virtues of a drug, which is liberated and dynamized into being by the methods laid down by the great dissenter.

HAHNEMANN ON ACONITE.—Among the papers left by the late Dr. von Lippe is one which deals with a 'critical examination of our materia medica.' Under this caption an article appears which deals with an original proving by Hahnemann himself of that great febrifuge, *aconite*. Hahnemann's own provings of aconite were first published in his *Fragmenta*. This was in 1805 and 138 symptoms were recorded. In 1811 the first volume of his *Materia Medica Pura* appeared. It contained 246 symptoms. Though there can be no doubt as to the genuineness of the symptoms recorded by Hahnemann as his own or of those derived from his class of provers, still it will not be amiss to read some symptoms of our great dissenter, arranged in chronological order, and fairly taken to belong to one individual.

One morning early he took the tincture (most likely) or a solution of the inspissated juice of the plant.

"Immediately I experienced dryness of the mouth, and a heaviness of the feet; the pupils began to dilate and the eyes assumed a staring expression. This was associated with a feeling of unsteadiness of the knees, especially of one knee which gave way on walking (this latter symptom continued upwards of an hour.) In about *fifteen minutes* I felt a pain in the middle of the sternum as if it had been bruised, indeed it was aggravated by touch; then the tips of the fingers became cold and pale, and this extended over the whole of the fingers; then there was a sensation of cramp in the soles and calves and coldness on the forehead, and I *was seized with extreme apprehension*; soon I became intolerant of the slightest noise; about *half an hour* after the dose, I was sick at the stomach, a kind of qualmish, unsettled feeling, and my head began to ache, a feeling as if the eyes would fall out and as if the brain were pressing outward, with here and there a sensation as if the brain were raised up, which was aggravated by the slightest movement, even by drinking and talking. *After an hour* the dryness of the mouth was especially marked on the middle of the tongue, and was associated with a raw feeling (there was no thirst); then I felt a burning and a fine, sticking pain in the fauces, as from the sticking hairs of the fruit of the wild briar-rose. At this time also I experienced neuralgic pains, namely, tearing pain extending from the shoulder down the arm to the wrist and even through the fingers, on every movement (rarely at other times); during the continuance of this pain the hand was blue; pain also in the rectum. Soon after this and *one and a half hours* after the dose, was a sticking and rather pressive pain

above the orbits extending down to the upper jaw; it caused nausea as though I had taken an emetic. (This sticking and pressing headache over the orbits extending into the upper jaw, causing nausea, has been observed in another prover—Hahnemann). At this time also the testicles were painful as if they had been bruised and there was a painful stiffness about the small of the back and hip-joints noticed on moving about. I was also sleepy, and could not resist the desire to lie down and sleep. The coldness which began in the tips of the fingers, fifteen minutes after taking aconite, now involved the whole hand, which became icy cold and insensible as if numb, this extended up the arms, and *three hours after the dose* I was seized with a general chilliness and anxiety. After this there was a shivering over the whole body with heat of the head and red cheeks, or at times with pressive headache and weeping. The cheeks became exceedingly red and the face hot. A sensation of heat began in the hands (which had previously been icy cold,) and spread over the whole body even unto the chest, though the skin was not hot. During these febrile symptoms there was APPREHENSION OF APPROACHING DEATH (which lasted many hours,) aversion to people, and especially an INCONSOLABLE ANXIETY and *piteous wailing*, with complaints and reproaches about mishaps which were often insignificant; this ANXIETY increased, till at the sixth hour it was AS THOUGH DEATH WERE IMMINENT. Soon after the cold feelings began I experienced a pressive pain in the pit of the stomach which amounted to a real tightness of the chest, a kind of distress for breath, and at the *third hour* a real throbbing headache in the left side of the forehead with paroxysmal, violent shocks in the right side of the forehead. At the *fourth hour* a pain in the bladder when walking, a tenesmus of the neck of the bladder and an *anxious desire* to urinate; the bruised pain in the small of the back (before mentioned) extended through the back up into the nape of the neck; all my joints became weak and their ligaments seemed to have lost their firmness; after this (*five hours*) there was experienced powerlessness at the head of the femur, or an inability to walk on account of an indescribable and intolerable pain, almost as if the head of the femur had been crushed; this pain was now worse, now better, and it disappeared after lying down and sleeping. At this time there was a rheumatoid pain in the nape of the neck, noticed, however, only when I moved the neck; this continued for hours. At the *sixth hour* I was unable to indulge in my accustomed smoke, either on account of the incessant choking and hacking caused by the entrance of smoke into the trachea, or because the larynx had become abnormally sensitive; at this time also my eyes were very sensitive to the light, a condition which seemed to be a kind of reaction from a condition I had experienced three hours previously, namely, a kind of craving for light, a desire to look at bright light; both these conditions seem to me to belong to the primary action of the drug.

From this time the symptoms abated, at the *seventh hour* there was a violent pain in the malleolus relieved by pressure; at the *eighth hour* catarrhal symptoms and coryza, and a sensation in the bronchi behind the sternum as of being asleep, a kind of numbness. At the *ninth hour* flatus that was emitted seemed very hot. At the *twelfth hour* micturition was difficult, a kind of dysuria (this was again noticed six hours later). At the *fourteenth hour* all the limbs felt bruised and there was a kind of

waking delirium, I jumped out of bed imagining that I was driving sheep. Toward morning (*twentieth hour*) I had a very violent dream in which I obtained a clear explanation of a matter that was an inexplicable riddle to me when awake. The next day (*twenty-four hours*) there was noticed only some coarse stitches in the side toward the back, and some itching pimples on the upper lip.

OBSERVATIONS ON 120 CASES OF LEAD ABSORPTION FROM DRINKING WATER.—By W. W. Stainthorpe M.D. B. S. Durham.

ABDOMINAL SYMPTOMS.

1. *Abdominal distension.* During meals the patient suddenly experienced a sensation of fulness and distension all over the abdomen, together with nausea and desire to eructate, lasting from a few minutes to several hours, and passing off quickly with possibly no recurrence for several days.

2. *Abdominal heaviness.* In this variety a cold, weighty feeling was experienced in the lower abdomen, setting in soon after meals, causing a "bearing down" sensation and a desire to pass urine and flatus, both of which gave temporary relief.

3. *Burning sensation in the epigastrium.* This symptom commenced as a raw burning sensation at the back of the throat, particularly in the early morning after drinking fluids, passing down behind the sternum, where it was frequently very acute, to the epigastrium, and through to the back between the shoulder-blades; at times, the diaphragm felt raw and tender, so that deep inspiration and coughing became painful. Loss of appetite, nausea, anorexia, with a sour clammy taste in the mouth, were usually present, as well as a desire to vomit and retch, which frequently resulted in the vomiting of glairy mucus having a very bitter, sour taste; rarely did the vomit contain food previously taken.

4. *Gnawing sensation.* This commenced as a vague uncomfortable feeling all over the abdomen, occurring at irregular intervals, and frequently associated with general weariness and languor, seldom of sufficient severity for the patient to seek medical advice until the symptom became merged into a dragging, gnawing sensation, which usually became localized to the epigastrium or hypogastrium as the severity increased; it was usually likened to a tearing sensation, as if the bowels were being torn out or grasped by an unseen hand. This symptom was always worse from two to three hours after meals, and was accompanied by an intense craving for food or drink, which usually afforded instant relief for the time being. Exercise and exertion considerably aggravated the condition. A constant desire to pass flatus, to eructate, and to micturate attended this symptom, the least effort to do so being usually strained and very painful.

5. *Colic.* The preceding symptom was the most frequent forerunner to definite attacks of acute colicky pain in the abdomen, which varied in character from a sharp stabbing, cutting pain to one of an acute twisting variety, as if the bowels were being nipped. The attacks usually came on quite suddenly and with such severity that the patient would roll about in considerable agony; the duration varied from a few minutes to several hours. The point of maximum intensity usually altered at each attack, the most frequent localities being around the umbilicus, the left iliac region,

immediately above the pubes, and to the right of the epigastrium. During the attack the patient would break out into a cold, clammy perspiration, and present an anxious appearance, the temperature being usually sub-normal and the pulse-rate slightly increased; a few cases only were observed in which the pulse-rate was under normal. When the pain was distinctly unilateral the pupil of the eye of the affected side was frequently noted to be contracted when compared with its fellow, and marked vagal tenderness upon the same side of the body was usually observed. The colic was often accompanied by vomiting, the vomit being bilious and containing a quantity of mucus. A constant desire to micturate, resulting in the voiding of a small quantity of urine, attended by considerable pain, was always present during an attack of colic. After the passing of the spasm the patient would fall into a sound sleep, and upon awakening the abdomen would be very tender to the touch, the pulse-rate usually above 100 per minute, and the temperature averaging 99 degrees to 100 degrees F.

HEADACHE.

This was a frequent and troublesome symptom and in many instances the first and only subjective one for a considerable time. It was always attended by a sensation of lassitude, languor, and fatigue in the early stage; later general restlessness, irritability of temper, partial temporary loss of memory, attacks of dizziness occurring quite suddenly, slight dimness of vision, periods of insomnia, and hallucinations of sight and hearing were noticed. The pain usually remained localised to one of the following regions—viz., occipital, frontal, temporal, or vertex, and frequently depended on character upon its situation. The occipital variety was most intense over the occipital protuberance, radiating down into the muscles of the neck, and was of a dull aching character, often so intense as to completely invalidate the sufferer. The frontal variety commenced as a slight feeling of heaviness behind the eyes, followed later by a sensation of constriction over the forehead. The temporal variety was more throbbing in character, usually accompanied by sharp, shooting, darting paroxysms, as if some instrument were being forced through the head from one side to the other. The vertex variety commenced with a feeling of heaviness, as if some heavy weight were resting upon the head, followed later by a “bursting open” sensation. The headache was usually very severe in the mornings, improving as the day went on, only to recur with a maximum intensity during the evening, vomiting frequently being present at the same time.

ANEMIA.

This condition varied from a slight pallor of the conjunctiva and mucus membrane of the mouth—usually attended by a yellowish appearance of the conjunctive and of the skin of the face—to an intense anemia suggestive of malignancy. In the early stage microscopic examination of the blood did not show any marked change; in the later stages the erythrocytes were considerably diminished in number, and there was a corresponding diminution in the amount of hemoglobin. Poikilocytosis was rarely seen, and in some instances there was a diminution of the polymorphonuclears and an increase in the lymphocytes. These observations tend to prove that basophilia as a sign of plumbism cannot be relied upon.

NERVOUS AND MUSCULAR DISORDERS.

While symptoms indicative of irritation of the nerve and muscle tissue were present in many of the cases only a few showed symptoms indicative of destruction of these tissues. The disorders of tactile sensibility were usually described by the patients as numbness and tingling, or "pins and needles" in the fingers and toes. The vaso-motor disorders consisted of cold hands and feet, and sometimes of hot, burning sensations in the extremities, especially after getting up in the early morning. At times the skin of the fingers and toes became quite white, or warm, livid, and moist. Profuse perspiration upon slight exertion was often noticed by the patient.

Muscular spasms. These were often noticed, either in the form of tremors and twitching of the extremities, or active cramps, most severe and persistent in the calves of the legs. These cramps were usually worse at night, preventing sleep, or in the early morning.

Sensory disorders. These consisted of aching, burning, twisting or shooting pains in the limbs, with occasional paroxysms of excruciating lancinating pains, principally in the legs and feet. At one time the darting pains would be in the fingers, at another in the arms, at another in the legs; in other cases, again, the sensory branches of the intercostal nerves were implicated. In some cases the superficially situated nerve trunks, such as the ulnar, the musculo-spiral, or the popliteal nerves were unduly sensitive. A few cases showed slight cutaneous anesthesia. In one patient who had complete ankle-drop and partial wrist-drop of both hands the anesthesia was complete in the lower limbs as high as the knees, and in the upper limbs as high as the elbows. Muscular hyperesthesia was frequently localised to the muscles of the legs.

Motor disorders. Impairment of the function of the muscles of the upper limbs was frequently noticed, the finer movements of the fingers and thumb being feebly performed, followed later by distinct weakness of the extensors of the wrist, patients often complaining that the grasping power had considerably diminished, and that they were afraid to carry any breakable object in case it suddenly fell from their hands. Two cases presented complete paralysis of the extensor muscles of the wrist and fingers of the right hand; in each case the paralysis became complete within three weeks of the patient first complaining of any symptom of plumbism. Although many suffered from weakness of the muscles of the legs, associated with exaggeration of the knee-jerk and of the plantar reflex, only one case of ankle-drop came under observation. Impairment of the muscles of the face was frequently noticed, as shown (1) by tremor of the lips, or on protrusion of the tongue; (2) by loss of expression, the lines which give character to the face being less marked or even obliterated. Two patients suffered from ptosis, one from nystagmus, and two from partial incontinence of urine and feces.

MENSTRUAL DISORDERS.

Dysmenorrhea was very pronounced in many cases, frequently lasting a week, accompanied by a scanty flow. Other patients had intervals of amenorrhea for several months, then one or two normal periods. The

majority of the female patients suffered from profuse menorrhagia lasting in some instances for a period of three weeks.

ABORTIONS.

Careful investigation failed to reveal an excessive number. In this series there were only five patients in whose urine lead had been found to be present who had suffered from abortions, one of whom had previously aborted three times in five years, another twice in three years.

BLUE LINES ON GUMS.

This sign depends largely upon the care devoted to the toilet of the mouth. Only two out of the fifteen patients seen presenting a blue line were in the habit of brushing their teeth daily. The intensity of the sign bears no relationship to the severity of the symptoms. I have seen it very pronounced in persons suffering from quite trivial symptoms of plumbism, and I have even known of its existence previous to symptoms appearing; fifteen out of 120 had the sign.

CONSTIPATION.

Although not a constant feature, many complained that their usual evacuation of the bowels was attended by more than the usual effort, and that they frequently had recourse to aperients. Those who suffered from costiveness in a marked degree frequently had attacks of spasmodic diarrhea followed by obstinate constipation. Many cases were observed in which acute attacks of colic occurred after the exhibition of aperients amongst patients who had not previously suffered from abdominal trouble.

CONVULSIONS.

Two cases of convulsions came under my notice, the patients being 65 and 18 years respectively. The former had 20 convulsive seizures extending over a period of 18 months; the latter six attacks in four months. They occurred quite suddenly without any previous warning, usually whilst the patient was walking about. Complete loss of consciousness was quickly followed by spasmodic twitching of the muscles of the face and limbs, usually unilateral. Respiration was at first quiet and sighing, later loud and stertorous, and at times intermittent; as the convulsive spasm passed off the breathing resumed the slow, shallow, sighing type. The pulse, which at the onset was fast and bounding, quickly became slow, intermittent, and at times hardly perceptible. The pupils of the eyes were usually dilated, fixed, and frequently unequal. Incontinence of the bladder and rectum usually took place during the attack. After the convulsion the patient would fall into a heavy sleep lasting several hours.

ALBUMINURIA.

This sign was present in 20 cases, varying in amount from a mean trace up to 4 grammes per litre, estimated by Esbach's method.

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FIFTY-SECOND SESSION

PRESIDENTIAL ADDRESS.

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THE STATE OF PENNSYLVANIA, SEPTEMBER, 1915.

BY

B. F. BOOKS, M.D.

RECOGNIZING the importance of the advancements that have been made in all of the branches of medicine and surgery, we choose at this time to confine our remarks to that field of medicine with which we are most concerned, viz., our duty to homœopathy and its interests.

Homœopathy is the outgrowth of the law of similia, which is readily traced to the Creator, that one absolute and profound being or Creator of all, unchangeable in wisdom, power and truth. Nature is the world of substance, governed by laws of cause and effect, and events transpire in orderly succession under these laws. All created things are governed by laws peculiar to them and these natural laws are immutable. Similia is one of these laws, and homœopathy is Nature in its most beautiful and simple form and to him who loves it and is true to his love, it is a source of wonderful revelations; to the

skeptic and scoffer it is a dark mystery; to the indifferent and indolent it is a field for fraud and hypocrisy.

To verify the fact that homœopathy is a law of nature, one need only compare the law governing its principles with the laws governing the elements which nourish and sustain man. As Nature refers to certain fundamentals enjoyed by man, producing all organisms and preserving the regular order of things, Similia must have prevailed from the time of Creation. That this is true is evidenced by the fact that cures have never taken place but through the law of Similia. Cures brought about in a prompt and permanent manner, by those who prescribe medicine, as it were by chance, without knowing what they were doing or why the drugs acted in a curative manner, confirm the fact that the sole law of nature in therapeutics is Similia. There is no disputing the fact that physicians of ancient times, realized that a remedy administered in any excess of the amount required, produced aggravations of the condition for which it was given. There were those who recognized that a remedy given in health, produced similar symptoms to those associated with the condition it was expected to cure. Haller, a physician of the eighteenth century, was one of the first to investigate the action of medicines on healthy persons. Hahnemann, in his unselfishness and lack of egotism, cites passages from many writers of ancient times setting forth their observations of the effect of particular medicines. Stahl, an eminent physician and chemist of the eighteenth century, and medical counsellor to the king, expressed his convictions in the following terms: "The accepted methods in medicine of treating disease by opposite remedies is completely false and absurd. I am convinced, on the contrary, that diseases are subdued by agents that produced similar effects." Hahnemann cites these instances to show that the true art of medicine might have been recognized before his time, as the great truth had more than once been preached by physicians. It is evident that nature's laws governing the art of therapeutics failed of recognition until the time of Hahnemann who, while the founder of homœopathy, was not creator of the law upon which it is established. Homœopathy has proven to be very much more than a passing phase in the history of medicine. Its truth has been demonstrated not only by its power in the past and present, but it has opened up to the willing worker, an inexhaustible field for investigation.

The future of homœopathy is one that may well inspire and stimulate the enthusiasm of the worker for humanity. All the forces of nature are available to homœopathic practitioners as remedial agents: the venom distilled from the animal creation; the remedies cunningly devised in the laboratory of plants and minerals; homœopathy enjoys the full use of these and of all those physiological influences which maintain bodily health. Let no one fall into the error that homœopathy is a closed circle or at the end of its history. All signs indicate a development in amplification of which we can only conceive the outline. Fortified as we are by past experience, we are yet in the infancy of the knowledge presented by its principles. Fortunate indeed are we that we are the representatives of these principles. However well we may appreciate our obligations to these opportunities and, many of us feel that we have been generous in our efforts, the general condition of the homœopathic profession throughout the state, demonstrates the fact that we have all often regarded our own selfish interests rather than the principles that we are obliged to perpetuate. What more could we expect? If we review the history of the past thirty years we note the growth of factors which have detracted from the true worth and importance of the homœopathic remedy. As the result, interest has declined in many quarters, and some physicians are content to rely upon psychological measures.

Today, we send a greeting to our friends of the dominant school, whose investigations have brought the entire medical world to recognize the truth and virtue of the law of similars. It is true their methods of application are crude and more or less dangerous, but this affords us an opportunity of further enlightening them as to the true method of application of this law. It also confronts us with the problem of maintaining our own identity which can only be solved by appreciation of the importance of the interests concerned.

It should be plainly evident to all, that proper organization is the only feasible means by which the interests of Homœopathy can be advanced. Our interests within this State must be thoroughly organized. Our local societies should be a federated part of our State Society, which should be re-organized as a federated part of the American Institute of Homœopathy. Our private, and general hospitals, and educational institutions should become a federated part of the Institute.

Upon assuming the responsibilities of the Presidency of this Society, we were assured that we were entering upon the most difficult proposition of our experience, owing to the fact that a large number of representatives of our school failed to appreciate their duty to Homœopathy. Investigation, truly verified the fact that there did prevail a marked epidemic of apathy. Appreciating the responsibility, we concluded to follow our general method in selecting the remedy, that is, to enlighten our self as to the cause of this abnormal condition and then remove it. After going over the State carefully, we found the cause of a small percentage of this apathy to be an inadequate comprehension of duty to obligations, but a much larger percentage of physicians, we found fully competent and comprehensive of their duty, but having discouragement forced upon them by over zealous anxiety of representatives of special interests unwillingly monopolizing the opportunities of our Society, and frequently permitting themes common to the old school to be presented, crowding to the rear our important principles.

As soon as we realize, and give active support to the fact, that the advancement of the true standard of Homœopathy is the greatest factor in advancing individual interests, we give you our assurance that 85% of our practitioners in this State can be organized. The time and expense required to accomplish this is such that it is unreasonable to be expected of one individual. This work we have found cannot be accomplished by correspondence, nor can it be accomplished by one who may convey the impression that he has a personal axe to grind. Personal touch with every representative of our interests is most essential to success in this work. We would suggest, that the members of this Society, create a fund to finance this work. We feel free in saying there is not one member of this Society but who would cheerfully contribute to such a fund, as the work is not that of individual interest, but in the interest of all, and it is reasonable that all should contribute. "No man has the right to take upon himself and enjoy all the good things, that association with a principle enables him to attain, without giving some of his own time, his energy, his talent and his means for the good of that principle." The affairs of this Society have been conducted along such economic and social lines that little if any good has been achieved, and it is time that we realize it.

This Society is the parent, or head of the organized interests of Homœopathy in this State. Its primary duty is to develop, by research and practice, the science of the principles it in name represents.

Personally, we are a strong advocate of specializing. The field has become so great that it is impossible for one individual to master it all to a point of efficiency. We suggest that all branches extend charity to one another. Those of you who have become efficient in your special line of surgery, be reasonable, and extend to therapeutics its rights in relation to these branches. Those of you who have become efficient in therapeutics, should realize that you frequently over-estimate the possibilities of the dynamic remedy, and fail to recognize barriers which prevent the further usefulness of the remedy, and which are amenable only to surgery. Our interests should not be separated, and if properly associated, are of great aid to one another.

MEMBERSHIP OF OUR SOCIETY.

It is unfortunate, not alone to the individual, but to our interests as well, that many Homœopathic physicians have been negligent in this. Affiliation of all interests is essential to its advancement. Isolation is a form of disunion. It bars one from frequent association of professional kin, and deprives one of opportunities of broadening his field of knowledge, which is essential to individual advancement. Unfortunately, we have members of this Society who, with the sole aim to curry favor and to possibly broaden their field of selfish achievements, have not only affiliated with Societies of the Old School, but have endeavored to use their personal friendship to induce others to follow their example. Fortunately this element is small, but it is time that we bring it to realize that a man's worthiness is measured by his loyalty to principle.

This brings us to a subject that we approach with all candor, feeling it our duty, as our conclusions are based upon the conditions we have found to exist throughout the State. Politics, in its broadest extent is the art of government. It has become fundamental in the affairs of all organizations. When factions run high, it is not best for the interests of all, but of only a part. With wise, prudent and proper politics, the field of Homœopathy can be famously enriched. As we face this important problem, it is our duty to sacrifice personal aspira-

tions to honor, and be wise, prudent and proper in our selections of those upon whom the responsibilities of our interests are to rest, and to be governed solely by the importance of the welfare of Homœopathy.

MEDICAL LICENSURE.

This is a very important subject, and one concerning which we are very optimistic. Justice to the rights of Homœopathy in this, will be forthcoming just as soon as representative Homœopathists recognize their duty to obligations, and educate the laity as to the truth and virtues of Homœopathy.

OUR INSTITUTIONS.

Time will not permit, as we had wished, to give a general review of all in the State, but we wish to mention some briefly

HOMOEOPATHIC STATE INSANE HOSPITAL.

The wise decision of the State in giving to Homœopathy this institution, for the supervision and treatment of this class of unfortunates, has been justified, for the hospital while in its infancy, has under the thorough hygienic and therapeutic skill of that most competent alienist, Dr. Klopp, demonstrated the Homœopathic wealth of remedial agents applicable in such cases. A visit to this institution is well worth one's time. We were favorably impressed with the daily clinical consultations, in which the Superintendent and all members of his staff take part, and which augur well for those submitted to their care and treatment.

HAHNEMANN MEDICAL COLLEGE.

There is little for us to say that you are not conversant with relating to this college as a scientific educational institution, but there has been criticism that came to us, through personal touch and correspondence, that we cannot permit to go unchallenged.

It should be evident to all, that during the past few years, there has been a marked advancement in the efforts of its instructors to teach dynamic drug action, and homœopathic therapeutics. The critics have been unreasonable, seemingly not conversant with the advanced requirements of a medical

college. In view of this criticism, we suggest to those intrusted with the branches of *Materia Medica* and *Therapeutics*, that they be explicit and impressive in their teaching, as the future Homœopathic physician depends largely upon the picture impressed upon his mind during student days.

Criticism of a want of sociability extended upon a visit to your Alma Mater, has been uncalled for, and demonstrates a want of appreciation of unfortunate conditions of the past. In recognition of what has been accomplished by this Institution, if never before, you should to day, be proud of the past and be stimulated with pride, as you view your Alma Mater looming to the front as a scientific medical institution, with which is associated a Dean whose sole time is given to the interests of this Institution, and a corps of instructors equalled by few, and surpassed by no medical institution. We owe to him our undivided assistance by associating our interests throughout the State, in such a manner as to aid the advancement of the standard of Homœopathy.

HOMOEOPATHY'S DUTY TO HUMANITY.

Acknowledging the fact, that the state and nation have made great strides in the practical application of knowledge and science in sanitary reform (greatly lessening the spread of disease), they have been sinfully derelict in their duty to humanity, by permitting unrestricted freedom to inebriate and venereal subjects as progenitors of their like. Through no fault of the progeny, but by the misdeeds of their progenitors, they have been ushered into this world with a defect of that most precious organ, which is more wonderful than all else in the universe, the brain—I refer of course to the natural born idiot and mental defective.

Homœopathy alone has a wealth of remedial agents bearing upon this abnormality of mind. Long before any one here, Hahnemann penned these immortal words "The state of the patient's mind and temperament, is often of the most decisive importance in the selection of the homœopathic remedy. It is the chief component of all diseases, and there is not a single potent medical substance in the world that does not possess the power of altering perceptibly the mental state and mood. Indeed each drug affects the mind in a different manner."

Our wealth in mental symptomatology is immeasurable. Vol.

I of "Hering's Analytical Therapeutics," gives us something like 350 pages, showing an orderly arrangement of mental phenomena and their concomitant bodily effects. Fortified as we are, Homœopathy should be given the supervision of one institution for the care and treatment of these unfortunates.

Elimination, or minimizing the evil influence of the progenitors of this evil, is an important professional duty to humanity. The number of inebriates, fortunately is in a fair way to be reduced by pronounced social influence.

The venereal problem is more serious and difficult to adjust. An unfortunate feature associated with this most destructive menace, is that class of physicians who are so endowed with monetary greed, that shielded behind professional ethics and the law of privilege, they close their eyes in willing submission, assuming the responsibility of giving opportunity to this monstrous destroyer of health, happiness and innocence.

Inebriety is not alone the progenitor of idiocy and criminality; it is a jewel in comparison with this monster, imbued with the faculty of latency, even to the third and fourth generation. We believe that 80% of your laparotomies and hypsterectomies are traceable to its influence. Thousands of innocents are consigned to an untimely grave by it. Thousands of innocents, not so fortunate of mercy, are destined to a life of hell on earth through its influence.

Never before have the entreaties of humanity so demanded of the profession aid in eliminating, or minimizing the influence of these monster diseases.

In order that we fulfill our obligations to humanity, in relation to these diseases, we should demand federal laws, requiring the submission of all venereal subjects to treatment and obedience to the physician for such a time as is required to make a definite cure. These laws should be given to our health officials to be strictly executed the same as the laws relating to sanitation and contagious diseases, so as to enable the innocent to recognize the danger. Penalty for violation of these laws should be severe.

Who of us has not stood at the bed side assisting nature to usher into this world a piece of little innocence, a glance at which revealed to us indisputable evidence of the hellishness of its progenitor, and wished to God that we had the right to then and there extinguish that spark, which we were compelled to permit to be preserved for an indescribable life of

torment and torture, and possibly later further propagate its like.

We strongly advocate the preservation of all organism, but not at the expense of posterity. When an organ becomes a menace, it should be eliminated, and in this case, if there is associated obstinacy against all methods and restrictions, then under the supervision of a judicial board, composed of reputable representatives of all schools of medicine, sterilization should be resorted to.

We suggest that this Society create a Bureau of Interest; Object: To visit our Educational Institutions, talk with their students, and reveal to them the opportunities Homœopathy opens to them. We suggest a bureau of Instruction and Interest; Object: To give particular attention to our local societies, visit them at their stated meetings, and present instructive papers, and to create a recognition of duty to furthering the standard of Homœopathy.

We suggest that all State Societies create a bureau of Federation and Education; Object: To federate all interests of Homœopathy, and educate the laity to realize the truth of the fact that Homœopathy is the fulfillment of all the principles of the law of God governing the elements created in relation to the ills of man. In order to further this important bureau, we suggest that the President of the American Institute of Homœopathy, appoint a committee of two (President a member ex-officio), to act jointly with such a committee appointed by the President of each State Society. This body to meet at an early date, time and place to be designated by the President of the Institute to consider and complete such means as they deem most practical for the federation of all interests, and the most practical and far reaching plan of education of the laity.

A BRIEF RESUMÉ OF THE GOITER QUESTION.

BY

JOHN DEAN ELLIOTT, M.D., F.A.C.S., PHILADELPHIA.

WHILE many questions of the physiology, the pathology, the etiology, and even the clinical classification of the effects of hyperthyroidism remain to be answered, our knowledge of goiter has reached that stage in which an intelligent diagnosis and prognosis can be made and successful treatment carried out in the large majority of cases.

A brief review of the embryology and anatomy of the thyroid gland will be of help in considering its lesions. Formerly it was supposed to originate from three centers but today the embryologists have come to the conclusion that it arises from a downgrowth of the hypoblast from the angle between the three portions of the developing tongue. The connection between the gland and the tongue, the thyroglossal duct, normally disappears and only remains as a depression in the tongue, the foramen caecum. The gland may fail to descend and remain at this point, lingual thyroid, and the presence of the thyroid in its normal position should be determined before the extirpation of a tumor at this location, otherwise hypothyroidism may follow. Portions may be partially or completely separated from the duct during its descent and be found in various parts of the neck, close to or at a distance from the gland, and are termed aberrant or accessory thyroids. Failure of the lower end of the duct to atrophy is the origin of the pyramidal lobe which extends from the isthmus toward the hyoid bone. The majority of midline cysts of the neck are in remnants of this duct.

Histologically the gland is made up of epithelial cells, fine fibrous trabeculae, a large number of blood vessels, for it is very vascular, and lymphatics. Whether there is direct connection between the blood and lymph vessels has not yet been determined. The epithelium is cuboid and its arrangement varies from irregular, almost solid groups of cells, as found in the fetal thyroid, to well developed acini with central lumens but no excretory ducts, so the secretion must be absorbed through the blood or lymph streams.

The thyroid is divided into two lateral lobes and an isthmus

which unites them near their lower borders, occasionally the isthmus is absent and the lateral lobes remain separated. It has a thin fibrous capsule which is derived from the pre-tracheal layer of the deep cervical fascia and extends into the substance of the gland and divides it into lobes and lobules. Anteriorly the capsule is thicker, for posteriorly it splits into two parts, one of which remains in contact with the gland and the other passes to the posterior wall of the pharynx and esophagus, thus enclosing them with the larynx, trachea and thyroid in a common sheath. The deep surface of each lobe and the isthmus is also fixed by bands of fibrous tissue which pass from the capsule to the sides of the cricoid cartilage and the posterior fascia of the trachea. It is on account of these connections that the thyroid moves with the trachea and ascends during the act of swallowing. Although it may be freely movable, the wandering thyroid, the gland can never be entirely separated from the trachea. When the head is extended the lower border is about an inch above the sternum, when flexed it will reach this bone or even extend beneath it. Occasionally a large part of the gland will be substernal, only a small portion being palpable, and hypertrophy can easily be overlooked. Dulness on percussion, evidence of pressure, such as dilatation of the veins of the neck, dyspnea, cyanosis, and edema, and an X-ray shadow are diagnostic features. As dangerous symptoms may occur suddenly early treatment is particularly called for in this location.

The external surface is covered by the skin, superficial and deep fascias, the sterno-mastoid, the anterior belly of the omohyoid, the sterno-hyoid and sterno-thyroid muscles. The internal surface is moulded over the underlying structures, the thyroid and cricoid cartilages, the trachea, the esophagus, particularly on the left side, the superior and inferior thyroid arteries and the recurrent laryngeal nerves. These last structures are of the greatest importance to the surgeon for it is necessary to ligate these vessels during thyroidectomy or as an independent operation and the nerve may easily be caught in the ligature if care is not exercised. The superior arteries, branches of the external carotid, join the gland at the upper poles and are exposed by retracting the sterno-mastoid from the omohyoid. The accompanying veins and lymphatics, even a small portion of the gland, should be included in the ligature if it is done as a curative procedure. The inferior arteries

come from the subclavian, are larger than the superior and pass to the posterior surface of the gland before they break up into their branches. As a rule the artery passes behind the recurrent laryngeal nerve, but it may divide prior to this and some branches lie anterior to the nerve and, occasionally, the whole artery does so. In placing a hæmostat the instrument should lie in the plane of the artery which is transverse or oblique and thus avoid the nerve whose course is vertical or nearly so.

Imbedded upon the surface of the trachea or the lateral lobes of the thyroid, but always separated from the gland by connective tissue, are four or more small, rounded bodies, about the size of orange seeds and brownish red in color, the parathyroids. Within the last few years they have been given a prominent position in thyroid surgery and McCallum and Voegtlin have shown that in animals their removal or injury precipitates attacks of tetany which are rapidly fatal. Fortunately nature has provided more tissue than is necessary to preserve nervous equilibrium and the destruction of all of them is unlikely, the greatest danger would lie in complete removal of the gland or in partial resection of the second lobe. However care should always be used to avoid them and if any are removed they should be transplanted in some of the remaining capsule after hæmostasis has been secured as hemorrhage into them leads to necrosis. Their location and appearance are so variable that it is best to consider any small, yellow or brown bodies as parathyroids. If tetany develops it is best treated by giving one of the calcium salts, acetate or lactate, intravenously, subcutaneously or by the rectum. Extract of parathyroid glands, even from an animal of a widely different character, may counteract tetany. If these measures can be successfully applied for a short period remnants of parathyroid tissue may resume their function. The ideal method of treatment would be to transplant parathyroid tissue, but Halsted in his experiments has only been successful in isotransplants, except when a great deficiency has been created when a fair per cent of autotransplants have grown. Clinically no successful cases have yet been reported.

A goiter may be a diffuse hypertrophy of the entire thyroid, though one lobe or the isthmus is usually more prominent, or localized enlargements, called adenoma or adenomatoses. The latter may be true tumors with distinct capsules, usually re-

sembling the fetal thyroid histologically, or local hypertrophy of a group of adult acini, and either may be multiple. Prior to operation the adenoma presents as a round or oval swelling and does not follow the normal contour of the thyroid, thus differentiating it from an enlargement of an entire lobe.

The surface of a goiter may be smooth or lobulated, is firm to cystic in consistency, reddish-brown to blue or yellow in color and on section dry or moist, smooth or finely granular and the secretion may be a thin, colorless, viscid fluid or a firm colloid substance.

The characteristic histologic changes are found in the epithelium and consist of hyperplasia, hypertrophy and atrophy. Hyperplasia and hypertrophy may be primary or a regeneration taking place in a gland which has already undergone atrophy. Plummer and Wilson state that exophthalmos usually occurs with the former but never with the latter. New acini are formed and the cells grow taller, becoming columnar in shape, are multiplied by reduplication, infolding of the walls and papilloma growing into the lumens of the acini. With atrophy the number of acini may be decreased, the cells are exfoliated, they stain less deeply, become lower until finally they are little more than squamous cells lining dilated lumens filled with deeply staining colloid material. The vascularity is great, many fine capillaries are scattered between the lobules, and at times the blood supply may be so free that the term vascular goiter has been used. The secondary changes are amyloid or colloid degeneration; cyst formation which may be due to dilatation of the acini and the disappearance of the lining membranes between them or degeneration following hemorrhage; fibrosis which may even cause so much destruction that myxedema develops; and deposits of lime salts. The symptomatology parallels the histologic changes so well that in a majority of cases careful study of microscopic sections from various parts of the gland will enable competent observers to outline the clinical course from the pathological findings.

At times enlargement of the thyroid appears to be a physiologic process and this is most noticeable in connection with the changes the sexual organs undergo. In some women swelling comes on regularly with the menstrual flow, and goiter is not an uncommon condition in the late stages of pregnancy and it is even looked upon by some obstetricians as a safeguard against tetanic convulsions. At puberty, less commonly at the meno-

pause, a decided hypertrophy may appear, on the other hand at the menopause a pre-existing goiter often atrophies or disappears. These physiologic enlargements usually clear up spontaneously or from medical treatment but may become chronic.

A goiter may be atoxic and only give rise to symptoms due to pressure, prominent among which are constriction or distortion of the trachea with dyspnea upon exertion; pressure upon the recurrent laryngeal nerve, occasionally with dyspnoea, but much more commonly paralysis of one or both vocal cords, which often requires laryngoscopic examination for recognition; dysphagia from pressure upon the esophagus; cyanosis; edema of the face, neck, chest or even an arm; and varicose or dilated veins of the neck or chest wall.

Enlargement of the thyroid may have been present for months or even years before giving rise to constitutional disturbances, or a toxemia may develop simultaneously with the goiter. When the symptoms appear early or are suddenly engrafted upon an old enlargement they are exaggerated, exophthalmos is more constant, and the pathologic picture is one of hyperplasia and hypertrophy. In the more chronic forms areas of regeneration in previously atrophic acini, degeneration, particularly of adenomas, or occasionally only atrophic cysts filled with thick colloid material are the findings. The principal symptoms are tachycardia which may only be evident after physical exertion, tremor which resembles that of alcoholism but is not confined to the extremities, emaciation and excessive nervousness. There are several ocular signs present when exophthalmos is absent: (1) Graefe's—the upper lid does not follow the eyeball when it moves downward; (2) Moebius'—a lack of convergence of the two eyes without diplopia; (3) Stellwag's—a widening of the palpebral fissure; and (4) Kocher's (an early sign)—sudden retraction of the upper lid when the patient is made to look steadily at the examiner or to look suddenly upward. Later developments are anemia, muscular weakness, mental irritability, vascular changes in the skin, pigmentation, edema, etc., cardiac degeneration and dilatation, diarrhoea and vomiting. It is well to bear in mind that one or a number of these symptoms may be absent.

When typical symptoms are present the diagnosis is readily made but with a small goiter or one that is substernal the true

condition may be easily overlooked and proper treatment delayed until too late. On the other hand a patient with a chain of nervous symptoms, rapid pulse, asthenia and an atoxic goiter may be classed as a sufferer from thyrotoxicosis unless the greatest care is exercised in studying the condition.

Unless death supervenes, which it does in about 15 to 20 per cent of these patients, or a spontaneous cure takes place, which occurs in about the same percentage of cases, the course of the acute symptoms is usually from one to four years with periods of amelioration and exacerbation. After this the symptoms are those of any toxemia which causes degeneration of the heart, liver and kidneys.

The medical treatment of goiter is still upon an unsatisfactory basis although it is of the highest importance. Until recently surgery was in much the same position but it has made large strides within the last few years and at present offers a safe and permanent cure in cases which have not been allowed to persist too long. Medicine may have some effect in reducing diffuse, atoxic goiters but none whatever in the adenomas. Surgery is indicated in this class of cases when pressure symptoms are present, for cosmetic reasons, and because the vital organs may be so slowly affected that lesions in them are overlooked. When thyrotoxicosis is present small doses of iodine, potassium iodide, arsenic, belladonna or china, or exposure to the X-rays may have a favorable effect, but iodine and X-rays must be used with caution as either may cause a severe or even fatal exacerbation. To ameliorate the acute symptoms absolute rest in bed amid quiet surroundings and the application of an ice bag to the goiter are the best and most certain forms of treatment and should be rigorously carried out until results are obtained. Specific serums have been used but their effects have not been favorable so that at the present time little is heard of them, but work along these lines is being continued and the future may bring more success.

Today the general consensus of opinion is that some form of operation offers the best, safest and surest results. The operation of choice is excision of the most prominent lobe in diffuse hypertrophy or enucleation when adenoma is the lesion. This can be done through the collar incision of Kocher which is curved and extends from one sterno-mastoid to the other with its midpoint at the level of the cricoid cartilage, unless the goiter is intrathoracic when it is just above the sternal notch.

The skin and platysma-myoides are divided and freely dissected up both above and below so that the muscles are well exposed. The superficial veins are doubly ligated and divided and the fascia in the midline is incised vertically and retracted to expose the thyroid, and if more room is necessary the sterno-hyoid and sterno-thyroid of the diseased side are divided separately, near their insertions to preserve their nerve supply. After incision of the capsule the gland can be easily enucleated beginning at the upper pole where the superior vessels are ligated. By drawing the lobe toward the median line the lower pole is brought into view, the capsule is carefully wiped away from its posterior surface and the inferior vessels are ligated under direct vision to avoid injury to the recurrent laryngeal nerve. If desired the isthmus is easily freed from its deep attachment, a clamp placed upon it before division and afterward the raw surface is covered by suturing the capsule over it. As the veins are met hemostats are placed upon them but after the arteries have been ligated bleeding is not free and sutures which draw the edges of the capsule together will control nearly all of the hemorrhage and save valuable time formerly used in applying ligatures to individual vessels. The sterno-hyoid and sterno-thyroid muscles are sutured, the mid-line fascia closed and it is our custom to always place a drain down to the capsule in order to prevent the absorption of thyroid secretion which has escaped during the operation, this is of particular importance in patients suffering from hyperthyroidism. The drain is placed through a stab wound in the lower flap and the original incision closed completely, the skin and platysma being united in layers for it is the accurate approximation of the platysma which prevents the scar from widening and leaving an ugly deformity. With an adenoma the technique is simplified as it can easily be enucleated by blunt dissection.

Contra-indications to this operation are an acute exacerbation; myocarditis and dilation of the heart; general adiposity with fatty heart; extreme emaciation and tachycardia; and advanced kidney or liver disease. Under these circumstances an attempt is made to improve the general condition of the patient so that operation can be withstood. The medical treatment already outlined, particularly absolute rest, should be carried out from four to eight weeks and if this does not suffice preliminary ligation of the arteries is indicated. Ligation is done through a shorter incision and should first be performed

on the left upper pole and if the reaction is severe it should be repeated on the right upper pole a week later. Improvement is rapid and reaches its height in about four months when excision is indicated for the good results decrease as collateral circulation develops. Ligature is sometimes successful in cases with mild toxic symptoms but as a rule the results are not permanent.

If the systemic poisoning has continued over so long a time that the degeneration in the heart, liver, lungs and kidneys can not be controlled operation is not only useless but will hasten a fatal outcome. The proper time to operate is when a cure can be confidently expected with very slight danger to the patient's life and that is early in the disease. Therefore with our present knowledge of goiter an early diagnosis and prompt surgical intervention are indicated unless the disease responds promptly and permanently to medicine.

THE DIAGNOSIS OF ABDOMINAL PATHOLOGY AS REVEALED BY ROENTGEN RAY.

BY

J. W. FRANK, M.D., PHILADELPHIA.

Member of the County, State and National Homœopathic Medical Societies, Germantown Homœopathic and Clinico-Pathological Society. American Roentgen Ray and American Electro-Therapeutic Societies. Roentgenologist in charge at Hahnemann Hospital and Childrens' Homœopathic Hospital, Philadelphia, Pa.

A SUBJECT of special interest and study since the earliest rudiments of therapy, is nevertheless one of the most difficult ones confronting the internist at the present time. This in part is due to the errors in interpreting anatomy and physiology which naturally effect the interpretation of pathology, therefore the mission of modern medicines is to sift the true from the false and to eliminate erroneous dogmatisms. Modern times have been interested in epoch-making evolution of physical methods, *i. e.*, percussion: auscultation: by means of which our views as to the location and size of certain organs have brought about different views to those previously held. Yet the advances made in abdominal diagnosis did not keep step with that of the thoracic cavity; the result was that internists everywhere were searching for aids in the finding and interpre-

tation of conditions and symptoms found in this part of the human body.

In the field of gastric investigation the stomach tube by V. Leube as an aid in the diagnosis and the stomach pump for therapeutic purposes by Kussmaul with its attendant results. Through this research was turned in the direction of functional diagnosis leading to the chemical examination and therefrom diagnostic deductions which we all know are not to be relied upon in all cases but only as one link in the chain of evidence pointing toward a certain condition and deserving of serious consideration. The functional test as applied to the stomach bears the same weight of evidence as does the examination of the urine in renal diseases. No careful diagnostician would care to make a diagnosis of kidney or stomach disease upon palpation alone, without a study of the composition of the urine or gastric contents.

True it is that many cases of gastric or renal pathology are recognized by the functional method, but suppose we are able to determine the presence of pathology; the vital question to be decided is, especially as regards surgical interference, the location, if gastric, whether near the pylorus or cardia, greater or lesser curvatures, extent and whether operation will be of any benefit. This is where the Roentgen Rays are of inestimable value.

Since 1895 when Roentgen discovered the so-called X-Ray, physicians, physicists and electrical engineers have been devoting their time and attentions toward perfecting an apparatus until at the present time, the possibilities are beyond our scope of perception. The use of the rays for the detection of foreign bodies within the abdomen dates back to the early days following its discovery. It has only been of later years that it has been of marked value to us in the discovery of pathological lesions in the hollow viscera. Let us first study the possibilities in the urinary tract. The selection of this tract as the first one for study is based upon the fact that it was the first one in which pathology was recognized by the Roentgen Ray. The recognition of urinary calculi is well known to all and since the advent of more nearly perfect apparatus, and in the hands of a competent operator, the positive or negative findings of calculi are capable of correct data in more than 99% of the cases. Not only are we able to diagnose renal calculi but also many renal diseases with or

without the aid of renal injections by means of some material which is opaque to the Ray. At the present time, if we are not able to show the shadow outline of the kidney we consider the negatives as not of sufficient value upon which to make a diagnosis. This being the case we can readily recognize an enlarged or displaced kidney: we can also recognize the presence of small calcareous or caseous deposits in renal tuberculosis. By the use of an injected material such as cargentos, argyrol or argentine or other colloid silver preparations we are able to study the entire structure of the pelvis of the kidney and the ureters and in this way recognize hydronephrosis, pyronephrosis, perirenal adhesions, displacements of the kidney, kinking or strictures of the ureters and again whether a shadow in the region of the urinary tract is in the urinary tract or external to it as for example: a shadow in the region of the right kidney to differentiate it from gall-stones or calcified glands. In the field of gastro-intestinal diagnosis, the Roentgen method has gone forward with leaps and bounds. To such men as Pfhaler, Cole, George, Carman and others in this country we are greatly indebted for their pioneer work, whilst abroad, Reudak and Holecknech and others have set the pace. The European method is mostly that of the fluoroscopic technique with the symptom complex; a method of limited value and to my mind not reliable.

Pfhaler of Philadelphia was one of the first, if not the first, to make use of the bismuth meal and study its progress through the gastro-intestinal tract. To Lewis Gregory Cole of New York we owe most for the marked advances made in this field of endeavor. Cole advocates the use of the serial method of gastro-intestinal examination which I believe to be the most accurate. The serial method involves the following technique: The patient is given a bismuth meal and a number of plates made of the stomach, usually from thirty to sixty with the patient in different positions and the rays coming from different angles, and following it through the intestinal canal making plates at stated periods, two, four, six and sometimes eight and ten hours after the meal, and in this manner we can detect any filling defects or abnormal conditions which may be present; ulcers, new growths benign or malignant, adhesions, kinks, membranous bands, pouchings, evidence of stasis, motility, foreign bodies, size, shape and position of stomach or intestines. Then too in studying the large bowel, we make use of

the opaque enema; first thoroughly emptying the bowel by purge, then filling it with a fluid containing bismuth, we are able to detect bands, adhesions, enlargements, displacements, new growths, diverticuli, foreign bodies and incompetency of the ileocaecal valve.

The appendix is recognizable in many cases following the bismuth meal. An appendix filled with bismuth and retaining this material over a certain period of time after the intestinal tract is empty is recognized as a pathological one; and again the shape of the appendix whether it has a narrowed lumen at the base and large toward the tip which again would indicate the possibility of inflammatory material at the base and gives a clue as to the proper treatment.

GALLBLADDER DISEASES AND GALL-STONES.

Whilst we are unable to detect gall-stones in all cases in which they are present, probably 65% would be a conservative statement as to the percentage in which we may expect to find them with Roentgen Ray. Pfahler thinks 70% to 73%, Cole and George believe that the percentage is even higher than this and I believe that in the course of the next year or two this will be raised to probably 90%. There are times when we are unable to detect the stones and yet feel that we have to deal with gallbladder infection with the probability of stones being present, in which we are able to make a diagnosis of gallbladder infection by means of the gastro-intestinal Roentgen examination and study of the position, size and shape of the pyloric end of the stomach and the first and second portions of the duodenum together with the hepatic flexure of the colon and their relations to the gallbladder and the under surface of the liver. There are certain characteristics about these organs when inflammation of the gallbladder is present which are not found in primary pathology of the pylorus or duodenum. In this way we are able to make a diagnosis when we are unable to detect the calculi, always taking into consideration the clinical history and age of the patient.

DIFFERENTIAL DIAGNOSIS.

Quite frequently one sees in our hospitals patients sent to the ward and also private rooms in whom a diagnosis of a

certain condition has been made and which upon further study proves to be an entirely different condition.

It has been my pleasure and good fortune to study a great many of these cases with the members of the surgical and medical staff of the Hahnemann Hospital and we have found and collected some very interesting data along this line. We have found in quite a number of cases in which a diagnosis of appendicitis has been made that the trouble was renal, sometimes gastric and at other times gallbladder, then again diagnosis of gastro-duodenal trouble had been found to be appendiceal, and in one case especially for the pain and tenderness was almost entirely on the left side and most marked in the left iliac fossa, the lesion was gall bladder pathology. Allow me to here briefly relate the history of a few cases.

Case I. Mrs. B., age 26. Examination at my private laboratory, being referred by a physician in the northeastern section of the state with the following history: Mother of one child which is normal and healthy in every way. Had suffered for several years with pains in the right side of the abdomen; a diagnosis of appendicitis was made, the patient taken to the hospital and operated upon, the appendix removed, but the pain did not subside. At times a mass or tumor would form and this had been diagnosed as an ovarian cyst and by another man as gallbladder infection; this tumor becoming quite large at times, at which time the pain would be most severe, then the pain and tumor would accordingly subside but return at a later period. With this history I was requested, if possible, to locate the trouble. I made an examination of the biliary tract and found it to be normal, then at the suggestion of her physician an examination was made of the gastro-intestinal tract and the only evidence of pathology that I could find was a scar of an old healed gastric ulcer and a spasm of the ascending and the first half of the transverse colon. On several of the plates made of the intestinal tract I found, low down in the pelvis, a shadow about three-eighths of an inch in diameter which I tentatively recognized as a urinary calculus, but as the examination was made in the gastro-intestinal position and not in the renal position I could not be positive of my interpretation and I had the patient return for another examination at which time I examined the renal tract and was unable to find evidence of calculi. Feeling certain that she had renal trouble, I advised a cystoscopic examination and pyelography; accordingly the

following day Dr. W. C. Hunsicker made a cystoscopic examination and injected the kidney. The cystoscope showed a pouching, ragged, bleeding ureteral opening; the pyelograph showed a slight degree of hydronephrosis. Upon questioning the patient I elicited this statement: "That two nights previous in attempting to urinate she had had difficulty in doing so and that the flow when it did start came with a gush and after this had no difficulty in passing water or with pain." This evidently then was a calculus passing out of the bladder. The cystoscopic examination and the pyelograph showed distinctive lesions of a ureteral calculus. This evidently then was a transient hydronephrosis due to a ureteral calculus which had been operated upon for appendicitis without relief. The most interesting part of this case is the fact that the young lady's father, six years previous to her operation, had been operated upon for appendicitis without relief from his pain and tenderness. Three weeks after leaving the hospital he passed a small urinary calculus after which he had entire relief.

Case 2. Mrs. S., age 31. Complains of pain in the upper right abdomen and back, palpable mass in the right side of the abdomen which was diagnosed a movable kidney. She was operated upon at a local hospital in this city and had the kidney fixed in position. Six weeks later she was sent to Hahnemann Hospital, services of Dr. D. B. James for repair of the pelvic floor at which time a mass was discovered in the right side of the abdomen; referred to the Roentgenological department for diagnosis, at which time I made the following report: Roentgenograms made of right kidney area and gall-bladder shows the following conditions: Gallbladder displaced downward so that the lower border is level with the junction of the fourth and fifth lumbar vertebræ. There are markings in this area that are undoubtedly due to gall-stones of which there are quite a number situated within the gallbladder. Roentgenograms made of the kidney after injection of carpentus show the following conditions: The right kidney displaced downward the pelvis of which is on a line with the third lumbar vertebræ. Diagnosis: Distended gallbladder with gall-stones and displacement downward of the right kidney. Surgical findings: Operated by Dr. H. L. Northrop and found the kidney in fixed position; the gallbladder displaced downward, markedly distended, the walls thickened, after which he removed ninety-two well formed calculi.

Case 3. Mr. G., age 52. Admitted to Hahnemann Hospital, services of Dr. S. W. Sappington for treatment of anemia. Blood examination showed the type of anemia to be secondary. Being unable to find the lesion causing the anemia the patient was referred to the Roentgenological department to see if we could locate the trouble; accordingly I made a serial gastric examination and submitted the following report: Series of Roentgenograms made of the stomach after the patient had been given an opaque meal show the following conditions: Stomach slightly enlarged, displaced downward about one inch below the umbilicus; text-book shape; peristalsis of the three wave type; equal on the greater and lesser curvatures. Obstructed on the greater curvature at the junction of the pars-media and parspylorica at which area a filling defect is shown and which I believe to be due to a growth on the inner wall of the greater curvature of the stomach and rather posteriorly. The peristaltic waves on the greater curvature are lost at the position of the mass and again picked up on the pyloric side of the mass and continues to the pyloric sphincter. The pyloric sphincter and cap are normal.

The two-hour plate shows the stomach almost emptied of the bismuth meal, the head of the column in the terminal ileum; the tail of the column in the jejunum. The four-hour plate shows the stomach empty with the exception of some adherent in the rugæ; the head of the column entering the cæcum; the tail of the column in the terminal ileum. The six-hour plate shows the stomach empty; the head of the column in the cæcum; tail of the column in the terminal ileum which shows some evidence of stasis. The twenty-four hour plate shows the head of the column in the rectum; tail of the column in the cæcum. The appendix does not show.

I could recite histories of a number of cases following a similar line but I shall not tire you in this matter but rather give you a slight history of the cases as the Roentgenological findings are thrown on the screen.

**BUSINESS PROCEEDINGS OF THE FIFTY-SECOND ANNUAL MEETING
OF THE HOMŒOPATHIC MEDICAL SOCIETY OF THE
STATE OF PENNSYLVANIA.**

THE Fifty-second Annual meeting of the Homœopathic Medical Society of the State of Pennsylvania was called to order by the President, Dr. B. F. Books, of Altoona, at 10.15 A. M., September 7, 1915, at Buena Vista Springs, Pa.

The invocation was delivered by Rev. F. C. Wagner, St. Andrew's Rectory, Waynesboro, Pa.

The address of welcome was made by Mr. A. J. Ford, manager of the Buena Vista Springs Hotel, who promised to do his best to make things comfortable for the members of the society during their stay.

The response was made by the first Vice-President, Dr. R. L. Piper, of Philadelphia, who thanked Mr. Ford, and said that they were booked to have a good time, under the direction of Dr. Books.

It was moved by Dr. William M. Hillegas, of Philadelphia, that the President's Address, as well as his Report, be postponed until the next morning, because of the small attendance at the opening session. Seconded and carried.

Dr. Ralph Bernstein, of Philadelphia, moved the adoption of the Program, as printed, for the Order of Business of the Session. Seconded and carried.

The Report of the Secretary, Dr. Irvin D. Metzger, of Pittsburgh was the next item on the program. At the suggestion of Dr. Metzger, a motion was made that the reading of this report be dispensed with, as it consisted of the Minutes of the last Annual Meeting, which had been published in the *HAHNEMANNIAN MONTHLY*. Seconded and carried.

The Report of the Treasurer was presented by Dr. Ella D. Goff, of Pittsburgh, and was as follows:

TREASURER'S REPORT.

Annual Report of Ella D. Goff, Treasurer, for the fiscal year ending September 7, 1915.

DR.

1914		
Sept. 14.	To Balance	\$1030.06
1915		
Sept. 7.	To Annual dues collected	1588.00
		<hr/> \$2618.06

CR.

1914	
Sept. 26.	By Order No. 161 to I. D. Metzger, Printing, Cards, Postage, Traveling Expenses \$ 216.12
	By Order No. 162 Wm. M. Hillegas, for Delinquent List Expenses 22.50
	By Order No. 163 to HAHNE-MANNIAN MONTHLY, for 42 delinquents 84.00
Oct. 25.	By Order No. 164 to Lulu Gay 125.00
Sept. 26.	By Order No. 165 to Ella D. Goff, Printing, Traveling Expenses 69.00
	By Order No. 166 to Paul McGahan, Publicity Agent... 51.70
	By Order No. 169 to Wm. M. Hillegas, Entertainment Committee 85.00
Dec. 22.	By Order No. 170 to HAHNE-MANNIAN MONTHLY, for 63 delinquents 126.00
1915	
Jan. 27.	By Order No. 171 to HAHNE-MANNIAN MONTHLY for subscription of 313 of members for 1915 and arrears of 2 members for four years 634.00
	————— \$1413.32
1915	
Sept. 1.	To Balance \$1204.74
	Respectfully submitted,

ELLA D. GOFF,
Treasurer.

It was moved and seconded that this report be received and referred to the Auditing Committee. Carried. Dr. Books appointed, as members of this committee, Drs. W. A. Stewart, Pittsburgh; W. Raymer, Beaver Falls; and J. W. Frank, Philadelphia.

Dr. J. J. Tuller, of Philadelphia, Chairman of the Legislative Committee, had been unable to be present at this session, but had sent his report to the Secretary. It was moved and seconded that this report be published. Carried.

REPORT OF THE LEGISLATIVE COMMITTEE OF THE HOMOEOPATHIC MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Mr. President, and Fellow-Members of the Homœopathic Medical Society of the State of Pennsylvania:

Your committee on Medical Legislation desires to submit the following report:

For a legislative year there has been comparatively little in legislation to report. A few things, however, have occurred that should be recognized as warnings of future annoyances and should be carefully guarded for our protection by future committees in charge of Medical Legislation. For this reason great caution should be exercised in the selection of the members of this committee, that none but experienced men shall be appointed to look after the interests of this organization in future meetings of the legislative body; to safe-guard the interests of the people of the Commonwealth; to protect them against the possible legalizing of the ignorant and unprincipled faker in the practice of the healing art, to say nothing of those persons who are chasing the vague forms of personal ambition in the many misapplied theories and doctrines of Therapeutics will be the duty not only of the committee on Medical Legislation but of this society as a body. It is from such organizations as these that the people generally have a right to expect protection from the charlatan in the medical practice and it has been my experience, that while a few will be carried away by the earnest pleading and the apparently reasonable theories of the irresponsible, it is for but a short time and through some sad experience or lesson they return to the center of high educational principle. I deem it the object of this body to use its power and its strength in every way to assist in maintaining a standard of Medical Education, such as will fit any aspirant to the practice of medicine with all possible means known to science for the detection, recognition, and cure of disease. That a condition should exist in this state in which men of not even a good smattering of knowledge in the detection of disease can be licensed is a reflection to say the least upon the sincerity of our state medical societies.

A successful battle was fought in the last session of the

Legislature checking the licensing of men who were not capable in any way of recognizing diseased conditions in certain organs of the body, and steps should be taken before another session of Legislature to legalize these men under a classification of the scientific bodies. There should not be oppression in such an arrangement but requirements for capacity should be strictly provided. Your committee desires to report that there has been the usual number of very troublesome and annoying Pharmacy Bills presented at the last session of the legislature without effect. One bill, however, that might have worked a serious hardship was one that locally intended to amend or complete the usefulness of the Harrison Narcotic Bill. This resting in the hands of the Pharmacists made it so difficult to prescribe any of the narcotic remedies that it was practically impossible. This bill met defeat. Another silly and as well unjust measure was one attached to the Municipal Act providing for the taxing of physicians. This clause being the rider nearly met with success but was caught in time to check it. There has been no change in the Medical Educational Law and none is anticipated at least for the present.

I desire to reiterate that it is extremely necessary for this society, particularly in view of the fact that it has been so constantly active in medical legislative work, to very strenuously guard the organizations of the science and education of the medical profession, and while it will be necessary for us to work in harmony with other bodies in the state that are struggling for the same end, it would be disastrous to us should we lose our identity as an individual organization and be swallowed up by any movement that would tend to carry us along a different path than one of individual action and the right of an individual position.

Respectfully submitted,

JOHN J. TULLER.

The Executive Committee, through Dr. Metzger, reported that the name of Dr. DeWitt G. Wilcox, of Boston, Mass., former President of the American Institute of Homœopathy, had been proposed for Honorary Membership at the last Annual Meeting, and had, according to requirements, been laid over for a year. Dr. Stewart moved that Dr. Wilcox be elected an Honorary Member of the Society. Seconded and carried.

The Report of the Board of Trustees was read by Dr. Hillegas, and was as follows:

REPORT OF THE BOARD OF TRUSTEES.

The Board of Trustees desires to report having met since the last meeting of the Society four times.

Bills for publicity, printing and postage, and the current expenses of the Society have been ordered paid.

The Board of Trustees desires to recommend the passage of the amendment to Sec. II, of Article VII, of the By-Laws as printed in the program, which raises the annual dues to five dollars a year. They also recommend the passage of a resolution remitting the first year's dues to any graduate joining the Society within two years of having been in the practice of medicine.

They also suggest that it would add to the interest of the program to have a moderate synopsis of the paper under its title in the program at the discretion of the chairmen of the various bureaux.

Respectfully submitted,

W. W. HILLEGAS,

Sec'y Board of Trustees.

It was moved and seconded that the report be accepted as read. Carried.

The Report of the Committee on Organization, Registration and Statistics, of which Dr. Metzger was Chairman, was, on motion of Dr. Hillegas, duly seconded and carried, accepted without reading; with the understanding that it would be printed in full in the Transactions.

The Membership Committee, of which Dr. W. Nelson Hammond, of Philadelphia, was Chairman, submitted the following names, which were read by the Secretary:

Ballard, M. B., 14 Elmari Street, Troy, Pa.; Beatty, William H., 5317 Girard Avenue, Philadelphia, Pa.; Bogges, W. B., 4919 Centre Avenue, Pittsburgh, Pa.; Bortner, Clayton E., Hanover, Pa.; Conley, Delmar H., 2517 Montgomery Avenue, Philadelphia, Pa.; Evans, Harry D., 6007 Lansdowne Avenue, Philadelphia, Pa.; Harkness, J. S., Mount Union, Pa.; Harvey, David G., 2d Street Pike, Bethayres, Pa.; Hathaway, Harry, 3218 N. 15th Street, Philadelphia, Pa.; Killien, Ralph D., 201 N. 52d Street, Philadelphia, Pa.; Klopp, Ray C., 1360 Perkiomen Avenue, Reading, Pa.; Krusen, Frank T., Boyer Arcade, Norristown, Pa.; Lee, William F., Manoa, Pa.; Lehman, Frank, 316 Radcliffe Street, Bristol, Pa.; Lewis, H. H., 1035 Centre Street, Ashland, Pa.; Lininger, C. B., Erie, Pa.; Mantz,

E. S., 330 Wyandotte Street, South Bethlehem, Pa.; Moyer, I. L., Sixth and Chestnut Streets, Columbia, Pa.; McDowell, A. S., 338 N. Fifth Street, Reading, Pa.; McGarrah, O. K., Altoona, Pa.; Noll, P. A., Glen Rock, Pa.; Read, H. Malcom, Homœopathic Hospital, Pittsburgh, Pa.; Shaffer, H. L., 423 Charles Street, Knoxville, Pa.; Sharbaugh, W. B., 607 24th Street, Altoona, Pa.; Shoemaker, George G., 32 East Wheeling Street, Washington, D. C., Simmer, G. E., 2512 N. 6th Street, Philadelphia, Pa.; Slaughter, F. V., 1429 W. Girard Avenue, Philadelphia, Pa.; Ward, John D., 126 S. 39th Street, Philadelphia, Pa.; Wesner, L. A., Johnstown, Pa.

It was moved by Dr. Bernstein that these twenty names be posted, and referred to the Censors for further action. Seconded by Dr. D. P. Maddox, of Chester and carried.

There being none of the Censors present at that time Dr. Books appointed Drs. J. Ross Swartz, Harrisburg; Louis Wilard, Pittsburgh; and R. S. Marshall, Pittsburgh.

The Report of the Board of Censors was presented by Dr. Swartz, who stated that twenty-three men who had submitted applications properly endorsed, and accompanied by checks, were recommended for membership in the Society.

Dr. Swartz then reported nine names of men whose applications had not been accompanied by the money, and said that one application had been endorsed by a gentleman who was not yet a member of the Society himself.

Dr. Books said that he would make himself responsible for the payment of the dues of those who had not yet paid.

Dr. Metzger made a motion that the gentlemen who had paid be made members of the society, according to the recommendation of the Censors. The motion was seconded and carried.

Dr. Metzger then moved that the remaining nine persons be elected members of the Society upon the payment of the regular dues. The motion was seconded and carried.

The Entertainment Committee reported, through Dr. Piper, its Chairman, that arrangements had been made for the ladies to go to Gettysburg by automobile, that there would be the usual banquet the following evening, and that some entertainers from Baltimore would be present to give a performance afterwards.

Dr. Bernstein moved that the report be accepted. Seconded and carried.

Dr. Bernstein then, as Chairman of the Publicity Committee, reported that a professional publicity man had been engaged to send out live wires after leaving Buena Vista to the newspapers in even the small towns; so that the people in each member's town would know that he had been away to a convention. Mr. McGahan, of the Philadelphia Inquirer, had been appointed to this position. Dr. Bernstein thought that the reason they had not had more publicity in the past was because the papers presented had not been such as to appeal to the public. He said that, so far as mail matter was concerned, several notices had been sent out to every member.

It was moved and seconded that the report be accepted. Carried.

The Exhibits Committee, of which Dr. Hillegas was Chairman, asked that all the members grant the courtesy of a hearing to the exhibitors, who had come to Buena Vista at great expense and inconvenience. Dr. Hillegas requested Dr. Books to make this announcement again the following day, when there would be a larger attendance.

The Report of the House of Delegates Committee, of which Dr. Gilbert J. Palen, of Philadelphia is chairman, was presented by Dr. Maddox in the absence of Dr. Palen. Dr. Maddox stated that frequent conferences had been held for the purpose of determining whether it was feasible to alter the plan of transacting the business of the Society so as to correspond with that of the Old-School Society, and have a House of Delegates. While the committee considered this the ideal way, they yet respectfully suggested that the matter be kept in abeyance until some future time. Of the forty odd local homœopathic medical societies, only eleven were arranged as county units; so that there were no representative local organizations from which a House of Delegates could be created.

It was moved by Dr. Stewart that the report be accepted and the committee continued. Seconded and carried.

The Report of the Woman's Homœopathic League was read by its President, Mrs. W. A. Stewart, of Pittsburgh, and was as follows:

REPORT OF WOMEN'S HOMOEOPATHIC LEAGUE.

The organization of the Women's Homœopathic League was perfected at Wernersville, September 26, 1914. Five days afterward we had proven the need of our existence and our first student was in Hahnemann. He repays our loan without interest and the money is again loaned. A year of his professional career has been saved. This year ought to work ten thousand dollars to him ten years hence. To save ten thousand dollars by the loan of a hundred is almost equal to Aladdin's Lamp. But the great economic gain to the state, a year's service of a physician, and the matter that we as an organization are vitally interested in surpasses any measure of dollars.

We have spent our efforts in organizing the work in different parts of the state this year rather than working for a large sum of money. We have members in forty-two towns and cities. The president has written six hundred and seventeen letters and visited nineteen towns and cities in the interest of the work. Our little book represents only three hundred and fifty-one dollars contributed by one hundred and sixty-five individuals.

This should easily be multiplied by ten the coming year. The money for this work should come largely from the laity but the work must be done in large part by members of physicians' families. Will you see that the cause does not meet with indifference in *your* family?

Respectfully submitted,

JULIA E. L. STEWART, *President.*

Dr. Bernstein made a motion that a vote of thanks be extended to the President of the Woman's Homœopathic League and to the Organization itself, for the active work that had been done; and that, at the same time, the report be accepted and spread on the Minutes. The motion was seconded and carried.

Both the Delegates to the Interstate Committee of the American Institute of Homœopathy, Drs. Aug. Korndoerfer and J. J. Tuller, of Philadelphia, being absent, there was no report presented.

The Report of the Superintendent of the Allentown State Homœopathic Hospital was read by the Superintendent, Dr. Henry I. Klopp, and was as follows:

ANNUAL REPORT OF THE HOMŒOPATHIC STATE HOSPITAL
TO THE "HOMŒOPATHIC MEDICAL SOCIETY OF THE
STATE OF PENNSYLVANIA," SEPTEMBER 6, 1915.

I herewith respectfully submit the Third Annual Report of the Homœopathic State Hospital to the Homœopathic Medical Society of the State of Pennsylvania.

MOVEMENT OF POPULATION.

During the hospital year ending May 31, 1915, 284 patients, 146 men and 138 women were admitted; of this number, 274, 142 men and 132 women, were first admissions: there were connected with the hospital on said date 933 patients, 474 men, 459 women; making the total number under treatment for the year 1217, 620 men and 597 women. The highest number in the institution at any one time was 997, 498 men, 499 women. The population on September first of this year was 976, 492 men and 484 women.

The total *discharges* within the same period numbered 221; of this number 52 were recorded restored, 55 improved, 9 unimproved, 5 not insane, 100 died. In addition to the 221 direct discharges, 49 patients were absent from the hospital on furlough, they appearing on our records as "connected." During the month of August 27 were sent out from the hospital on furlough, the largest number for any month since the opening of the institution. On September 1, 1915 there were 73 patients on furlough, this being the largest number so connected at any time. Of those remaining in the hospital May 31, 1915, and those connected by furlough, the probability as to recovery or improvement was considered favorable in 185 cases.

The average age of admissions was 42 years for the men and 43 for the women: 10 were under 20 years; 48 between 20 and 30; 73 between 30 and 40; 61 between 40 and 50; 49 between 50 and 60; 32 between 60 and 80; and ten were over 80 years of age.

Of the 52 discharged "restored," 41 were under 40 years; 11 between 40 and 60: the duration of treatment in 34 cases

was under 6 months; 10, 6 to 12 months; and 8, 1 to 2 years.

Of the 100 deaths, the average age was 58.46: 9 were over 80 years of age; 21, 70 to 80; 18, 60 to 70 years; the remainder were distributed between 20 and 60 years. The percentage on the whole number treated was 8.21.

19 died from General Paralysis of the Insane.

13 died from Cerebral Hemorrhage.

18 died from Tuberculosis of the Lungs.

27 suffered from Senile Psychosis with complicating physical ailments.

A comparison of the foregoing report with that of a year ago shows a gain in the number discharged, restored and improved, and a lower death rate. We therefore have reasons to be encouraged with the work we are accomplishing. The outlook for the coming year is very good. There is every indication that the number discharged, restored and improved will exceed the past year's record; this is evidence that the Medical Staff is doing good work.

The hospital for the most part since the beginning of this year has been crowded, especially so on the men's service, at times exceeding the bed capacity. We found it necessary on March first to notify the authorities within our hospital district of twelve counties, to the effect "that the institution having reached its capacity and available accommodations being limited to vacancies resulting from the discharge of patients, that the authorities ascertain if there is a vacancy before sending a patient, preference being given to such cases having symptoms indicating the possibility of recovery."

TREATMENT.

The treatment of patients has been greatly augmented by the installation of a hydrotherapeutic equipment, in duplicate, for the men's and women's service. This consists of a control table, with hot and cold scotch douche, needle spray and rain douche, perineal spray, sitz bath, and electric light cabinets. Of even greater service than the above, an equipment of batteries of four continuous flowing baths for each service. With rest treatment, attention to the physical health of the individual patient, hydrotherapy, and as the patient improves, exercise, occupation therapy, not forgetting the single Homœopathic

remedy, much is attained towards the restoration of mental unbalance.

In this connection it may be of interest to state that a study of one year's prescriptions shows that 149 Homœopathic remedies were prescribed; 2901 prescriptions, and approximately 17000 refills were made. The fifty remedies most frequently given were in the following order, the frequency ranging from 235 to 10 prescriptions for each drug, namely:

Belladonna	235	Collinsonia	28
Nux Vom	223	Cimicifuga	28
Bryonia	195	Glonoine	27
Ars. Alb	116	Arnica Mont	27
Eup. Perf	115	Cantharis	27
Gelsemium	114	Pulsatilla	27
Rhus Tox	103	Kali Mur	25
Merc. Viv	96	Guaiacum	23
Ant. Tart	80	Merc. Cor	23
Aconite	78	Hepar Sulph	23
Merc. BinIod	76	Lycopodium	21
Phosphorus	71	Hydrastis Can	21
Apis Mel	68	Mag Phos	20
Ipecac	58	Capsicum	18
Pod	51	Stramonium	17
Causticum	49	Phos. Acid	14
China	48	Equisetum	13
Ars Iod	48	Lachesis	13
Merc. Prot Iod	46	Ver Vir	12
Merc. Dulc	38	Hypericum	11
Sulphur	36	Iodine	11
Ignatia	33	Strych. Phos.	10
Colocynth	31	Pic. Acid	10
Sang, Can	31	Fer. Phos.	10
Kali Carb	31		
Aesculus Hip	30		

No chemical restraint in the form of narcotics or hypnotics was prescribed; likewise no mechanical restraint and seclusion except in a few surgical cases, for a limited time, for the protection of the patient, and on two occasions in a homicidal woman patient; seclusion for three very disturbed men patients was granted for a few hours.

OCCUPATION—THERAPY.

For the so-called chronic patients, occupation in one form or another in the various departments of the institution is beneficial and retards mental deterioration. For those who are indifferent and lack initiative, Diversional Occupation in charge of Industrial Instructors, and under Medical direction, is helpful in many cases.

Under this head are included the various diversional occupations, such as reed, raffia and scroll work; the making of woven, hooked, crocheted and braided rugs; Indian weaving, embroidering, crocheting, tatting, quilting, stencilling, hemming, drawn work, the making of stockings, as well as general mending. We also have kindergarten classes, gymnasium games and entertainment. In addition to this, vegetable and flower gardens serve a double purpose of diversion and out-door employment.

A year's work in the Industrial Art Department shows an average of 27 men and 24 women, a total of 54 patients daily under this form of treatment: they made 7654 pieces of the various descriptions, above enumerated, within this period.

WORK REPORT.

The Annual Work Report for the year ending May 31, 1915, showed average number working daily, 578; 308 men and 269 women, or 58 per cent of the daily hospital population, 62 per cent for the men, 55 per cent for the women. The average number of hours daily for each patient was 4.08; the men averaged 4.41, the women 3.75 hours.

The report for the month of August shows an increase, over the above, in those employed: the average number working daily was 650 or 65 per cent.

The work reports include the following divisions: wards, dining rooms, kitchens, laundry, power house, farm and garden, industrial, bakery, administration housework, tailor, cobbler, painter, store-room, clothes room, electrician, shoemaker, mattress and broom department, ward sewing and mending, mending rooms and sewing room.

HEALTH OF PATIENTS.

The general health of the hospital population has been very

good. We have been spared the necessity of meeting any epidemic of either contagious or infectious disease.

The following major *Operations* were performed by members of our Consulting and Hospital Staff, from June 1st, 1914, to date:

- 2 Cholecystotomies for Biliary Calculi.
- 1 Suprapubic Prostatectomy.
- 3 Appendectomies.
- 1 Hernioenteropexy for Strangulated Hernia.
- 3 Herniotomies.
- 1 Adenoma Cystoma of Ovary.
- 1 Amputation of Arm.
- 1 Perineal Section to remove Foreign Body.
- 1 Laparotomy to relieve Obstruction due to Lane's Kink.
- 1 Perineorrhaphy.
- 1 Enucleation of Eye.
- 1 Appendectomy and Ovariostomy.
- 1 Laparotomy to repair Intestinal Perforation.
- 1 Herniotomy and Appendectomy.
- 1 Herniotomy (double).
- 1 Incision of Thigh and Leg for Osteomyelitis.

In the daily routine there were a large number of minor operations and gynaecological examinations.

LABORATORY WORK.

The routine examinations made in the laboratory during the year were as follows: 981 Urinalyses, consisting of an analysis upon each admission, and a yearly examination upon all patients; 57 Blood Counts; 17 Widal Tests for suspected Typhoid; 11 Autogenous Vaccines; 6 examinations for the detection of Typhoid Carriers; 20 Bacteriological Examinations; 12 sputum, gastric and faecal analyses; 381 tests for Wassermann Reaction; and 25 Noguchi for Complement Fixation. The "Wassermann" work will be presented in a paper, as a report in connection with the Bureau of Pathology and Pathological Anatomy, Fifty-two (52) Spinal Punctures were made and complete Chemical and Serological examinations conducted; Auto Serum Therapy was tried for Psoriasis; permission was obtained for 21 Post-mortem examinations, or 21 per cent of the total number of deaths.

TRAINING SCHOOL.

The Training School for Nurses has been maintained during the prescribed period of nine months of the year. The number enrolled the past year was 31; 27 women and 4 men. Five pupils have completed the second year work. The first class to be graduated will be in 1916. Arrangements are under way for affiliation with one or two General Hospitals so that our pupil nurses may receive obstetric and pediatric experience which will be included in the prescribed three years' course.

SPECIAL APPROPRIATIONS.

The several new buildings under process of erection, such as the Reception Building, Pavilion for Tubercular Patients, Nurses' Home and Isolation Cottage, are progressing in a satisfactory manner; some of them will be occupied late this fall, and others in early spring.

The hospital received from the 1915 Legislature \$72,161.00: mainly for the construction of Concrete Tunnels so as to connect our new buildings with steam, water, electricity and sewage; also for Furnishings, and Improvement of building and grounds. Unfortunately, several of the important Special Appropriations asked for were not granted. We can appreciate the force of the argument that the State budget was so large that cuts were necessary, and this hospital had to suffer, in like measure with others, in consequence.

When a public institution is doing its utmost to respond to urgent demands, and particularly twentieth century progressive needs for the proper classification and treatment of the unfortunates, a deduction of the necessary requests for Special Appropriations materially hampers its progress.

In view of the demand for accommodations for new admissions, and for the nursing force as well as other employees, this is a retarding factor in the general plan of development and means unfortunate delay. With better accommodations for classification of the new admissions, especially the so-called recoverable types, and facilities for treatment, greater results may be expected, higher recovery rate and a lower percentage of deaths.

We should feel gratified that the 1915 Legislature passed the "*Dunn Resolution*," directing the Board of Public Charities to

prepare and report to the Legislature at the opening of the next regular session, a plan whereby the Commonwealth of Pennsylvania can support and care for all its Indigent Insane in institutions owned and controlled by it, with a view to the establishment of this policy at the earliest possible date. This is an important movement in the right direction to remove the stigma to which Miss Dorothea Dix, who spent her life in improving the conditions of the Insane, called attention as long ago as 1845. In a report to the Legislature of Pennsylvania she said, "almshouses were unfit for insane patients and that they never can be made suitable places for the reception and treatment of the Insane." The State Board of Public Charities, in a resolution passed in 1870, at that time recognized the importance of providing "sufficient accommodations for the maintenance and treatment of all the Insane who may not be cared for in private hospitals."

The survey of all the institutions in Pennsylvania caring for the Insane, made for the Public Charities Association of Pennsylvania by Dr. C. Floyd Haviland, beyond a question shows the need of the "Dunn" Resolution. It does seem that this state should have given consideration to this subject ere the lapse of seventy years since Miss Dix's report. We therefore trust that the Board of Public Charities will have a recommendation in readiness for the next Legislature that will bring results and ultimately secure a statute which will absolutely prohibit almshouse care for these patients. Many states already have laws distinctly forbidding the care of the Insane in almshouses. Why should not we have the same in Pennsylvania? If our Legislators fail in due time to make such provision, public sentiment should not tolerate continued neglect.

The Medical Profession and the public have a standing invitation to inspect the hospital and see that nothing is concealed from the intelligent visitor. We invite all representative physicians to become interested in our work so that the profession may know what we are actually doing, for in Psychiatry the medical care of patients has changed much. Our aim is to recognize the factors which are at work in the patient for better or worse and to treat him accordingly, as an individual, along humane and progressive lines from clinical as well as laboratory standpoints.

The foregoing is respectfully submitted.

HENRY I. KLOPP, M.D.,

September 7, 1915.

Superintendent.

Dr. E. A. Marshall made a motion that the report be accepted with commendation. Seconded and carried.

The amendment to the By-laws proposed at the last Annual Meeting and printed in the program was then considered. The President read the first section (a) which provided for changing the word "January," in Section 2, Article IV, to "November," so as to cause the officers to assume their duties two months earlier. Dr. Hillegas explained the desirability of this.

Dr. Bernstein moved that the section be amended as printed in the announcement. The motion was seconded and carried.

The second section (b) of the amendment was then read by the President. It was as follows:

(b) In Section 2, Article VII the word "three" shall be changed to "five", so as to read, "Active members shall pay annually, in advance, the sum of five dollars, toward defraying the expenses of the Society." Two of these five dollars pay the member's annual subscription to the official journal for publishing the Society's transactions.

Dr. Stewart explained that when the dues had been \$5, the society had always been able to meet its own needs and have money to spare to help other organizations. The dues had been reduced with the object of increasing the membership; but this had failed, and the Society was gradually running behind in its expenses. Dr. Stewart thought that anyone vitally interested in the Society would pay five dollars as quickly as three, and it was a question in his mind whether the other kind of member was worth having and keeping. He hoped the amendment would be adopted, as it would enable the Society to do many things of a helpful nature if there was more money.

It was moved by Dr. Stewart, and seconded, that the amendment be adopted. Carried.

Reports from the Local Societies of the State were next in order. The Secretary called the names of these societies.

Dr. William M. Hunsicker responded for the Alumni Association of Hahnemann Medical College, stating that they had had a most successful banquet, the attendance being much better than had been expected. This somewhat handicapped the committee, and he requested that members who anticipated attending the Commencement Exercises and the banquet on that night would notify the committee in charge in sufficient

time to enable it to handle the banquet satisfactorily. The banquet already held had re-established a balance in the treasury of the Alumni Association, which had been in poor shape before. Dr. Hunsicker further stated that the Association is now paying the tuition of a student at Hahnemann.

Dr. Bernstein moved that the report be accepted as given. Seconded and carried.

Dr. R. S. Marshall responded for the Allegheny Homœopathic Medical Society of Pittsburgh, and said that they had had the usual meetings throughout the year, some of these being of great interest, and had entertained various guests.

Dr. Stewart reported for the Beaver County Homœopathic Medical Society, and said that it numbered fourteen members, and that there is usually one hundred per cent of the membership present at the meetings. One reason for this is that Dr. Raymer, of Beaver Falls, who is a member of the Society, gives most interesting talks on the plants from which the homœopathic remedies are obtained. He gathers these plants that grow in his own neighborhood, and makes the preparations from them himself. He brings the plants and the preparations and talks on them to the "boys", as he calls them.

Dr. W. Raymer said that he had taken up the study of Homœopathic materia medica, and had worked at it for a number of years; but he felt that he was still in his "A B C's". He remarked that a great deal of difference in the tinctures is made by the way in which they are prepared. He prided himself on the fact that those presented to the Society had been made by him on the day that the plants were gathered. The members of the Beaver County Society are pure, upright, sober men, who believe in law.

Dr. Bernstein moved that the report be received. Dr. Metzger suggested that this be done at once for all the reports, so as to avoid putting a lot of things into the Minutes that were immaterial.

Dr. Stewart, for the State Doctors' Club of Pittsburgh, said that this is a semi-professional organization. They always try to have a paper and to have a good, fraternal time. The Club does a great deal to keep the profession in Pittsburgh together.

Dr. J. R. Swartz reported for the Central Pennsylvania Homœopathic Medical Society of Harrisburg, which is composed of physicians from Dauphin, Franklin and York Coun-

ties. It is a very active society, numbering sixty men; and they always have forty per cent of these present at the meetings. The doctors from the smaller towns, although enthusiastic and efficient, are sometimes unable to attend. The Dean was a guest at the last meeting. The Society means to pay the tuition of a student at Hahnemann, as soon as it can find the proper man. This Society was formerly called the Goodno Society, but had changed its name, in order to conform with the request made at the last meeting of the State Society that local societies be designated according to districts.

Dr. D. C. Klein, of Reading, President of the Lehigh Valley Medical Society, reported progress. He felt that this Society, including in its membership the physicians of Lehigh and Northampton Counties, was doing good work. He accounted for the improved attendance by saying that heretofore the organization had been entirely in the hands of its officers. On becoming President, he had suggested that they organize into Bureaus, having a Chairman for each bureau. This plan was adopted, and brought about renewed interest.

Dr. Books had visited the society and had suggested changing its name to designate it as a county society, but they had decided to retain the present name so as to include the two counties.

Dr. Hillegas reported for the Philadelphia Society of Clinical Research, and said it was the finest little society in Philadelphia, and perhaps in the State, from a clinical and scientific standpoint. Nine meetings a year are held. For social reasons, the membership is limited to seventeen; and there is an attendance of 85 per cent at each meeting, with one hundred per cent of membership in the State Society.

Dr. Anna Johnston stated that the Woman's Homœopathic Medical Society of Pittsburgh has twelve members. One hundred per cent of these belong to the American Institute of Homœopathy, though not to the State Society.

Dr. R. L. Piper was happy to say that the Blair County Medical Society is in a flourishing condition, due to the energetic efforts of Dr. Books and the kindness of its many friends who had presented papers at its regular meetings. Everything is harmonious in the Society, the majority of its members being present at the State Society's meeting.

Dr. Books reported that the Cambria County Medical Society was the first one organized by him. He had succeeded in doing

this, after several efforts; and its members seem determined to make it a real live organization. None of its members had yet arrived.

Dr. Hillegas made a motion that the meeting adjourn until 2.30 P. M. Seconded and carried.

SEPTEMBER 8, 1915.

The meeting was called to order by the President at 10.15 A. M.

The Report of the Necrologist, Dr. W. F. Baker, of Philadelphia, was called for. The full report follows:

To the President and Members of the Homœopathic State Society of Pennsylvania:

Your Necrologist would report that during the year we have been spared the experience of former years in that only an occasional death has taken place. Former meetings usually found us with a long list of useful men missing but this year our ranks are still intact ready for the organization that our President has so laboriously worked during the last year.

The following names are respectfully reported:

LANDRETH W. THOMPSON, M.D.

Dr. Thompson after a long illness from which he no doubt suffered considerably, yet unwilling to give up his work until a short time before his death which took place on March 31st, 1915, at his home in Philadelphia, Pa.

Dr. Thompson was as most of us knew, thoroughly devoted to his specialty of surgery, being connected with St. Luke's Hospital of Philadelphia, Pa., and The Children's Homœopathic Hospital.

After graduating at the University of Pennsylvania, he took up the study of Medicine in the Hahnemann Medical College of Philadelphia, and after graduation was elected to the Chair of Emergencies, which position he held until the time of his death.

In the loss of Dr. Thompson the Homœopathic profession loses an ardent worker and strong advocate of the law of similars. Dr. Thompson was unmarried.

It was moved and seconded that the Report of the Necrologist be accepted. Carried.

Dr. Piper, the Vice-President took the Chair, while the President, Dr. B. F. Books delivered the Address of the President, as follows: (This address published in full in the March issue of the *HAHNEMANNIAN MONTHLY*.)

Dr. Piper appointed the following as the Committee on the President's Address: Drs. W. A. Stewart, H. I. Klopp and Ralph Bernstein. Their report is as follows:

REPORT OF THE COMMITTEE ON PRESIDENT'S ADDRESS.

The Committee commends the President for his emphasis of the fact that homœopathy is an expression of a natural law of cure, and urges upon the members a greater activity in developing this special therapeutic contribution.

The reference to the need of more effective organization of the forces of our school expresses an idea of extreme importance. We urge the attention of our local, State and National bodies to the consideration of this vital subject, in order that we may accomplish organization that is representative, articulate and effective. The emphasis of the fact of the individual's responsibility should not be lost. The creation of a fund for propaganda work is to be commended.

The reference to the existence of a college in this State meeting the highest scientific requirement, combined with the thorough teaching of homœopathic therapy, is highly gratifying, and we cordially endorse his recommendation that this institution receive the loyal, and undivided support of the members of the profession in this State.

The recommendation of the segregation of defectives is heartily endorsed. The sterilization of certain classes of criminals and defectives, under proper legal and scientific safeguards, is approved.

In summarizing, the Committee finds abundant evidence in the Presidential Address, of the tireless, devoted work performed by him during his term of service. The Committee desires that an expression of appreciation be, in this way, made a matter of record.

Respectfully submitted,
WILLIAM ALVAH STEWART,
HENRY I. KLOPP,
RALPH BERNSTEIN.

The Report of the Auditing Committee was presented by

Dr. Stewart, who stated that the Auditors had examined the books of the Treasurer and found them to be correct.

It being then ten minutes to eleven o'clock, a recess of ten minutes was taken until the time set for Nomination of Officers.

The following were then nominated:

For President: Dr. J. M. Heimbach, of Kane;

For First Vice-President: Dr. W. Raymer, of Beaver Falls;

For Second Vice-President: Dr. Wm. M. Hillegas, of Philadelphia;

For Secretary: Dr. I. D. Metzger, of Pittsburgh;

For Treasurer, Dr. E. D. Goff, of Pittsburgh;

For Necrologist: Dr. W. F. Baker, of Philadelphia;

For Censor for Three Years: Dr. J. W. Stitzell, of Hollidaysburg;

For State Society Editor of the *HAHNEMANNIAN MONTHLY*: Dr. Ralph Bernstein, of Philadelphia;

For Trustees for Three Years: Drs. W. E. Van Lennep, of Philadelphia; R. S. Marshall, of Pittsburgh; W. M. Hunsicker, of Philadelphia; and B. F. Books, of Altoona.

Dr. Heimbach was nominated by Dr. Swartz; Dr. Raymer, by Dr. Stewart and Dr. Hillegas, by Dr. Wells. Dr. Heimbach nominated Dr. Metzger. In making these nominations, each gentleman made a short laudatory speech. For State Society Editor of the *HAHNEMANNIAN MONTHLY*, Dr. Wells nominated Dr. Gilbert J. Palen, the former Editor; but he declined on account of pressure of work. Dr. Bernstein was then nominated by Dr. Hillegas. The Election was set for the following morning at eleven.

SEPTEMBER 9, 1915.

Election of Officers was held at 11 A. M. Dr. Metzger read the names of those nominated at the session on the preceding morning.

Dr. Bernstein made a motion that for those offices for which there was but one candidate, the Secretary be instructed to cast the vote. The motion was seconded and carried.

Dr. Metzger reported that he had done so, and Dr. Books announced their election. This disposed of all but the Trustees, there being four nominations for Trustees for three years, three only to be chosen.

Dr. Marshall, one of these candidates, stated that he had not

been present when nominated, and that he wished to withdraw his name. This leaving only the number of candidates to be elected, Dr. Fleagle made a motion that the Secretary be instructed to cast the ballot for their election. The motion was seconded and carried.

Dr. Metzger reported having done so, and they were declared elected.

At the conclusion of the business session the following resolutions were presented and carried:

Whereas the Homœopathic Medical Society of the State of Pennsylvania is concluding its fifty-second annual session at Buena Vista Springs, Franklin County, Pa., and

Whereas the thanks of the society and an expression of the appreciation of the members of the work and interest in their behalf is highly proper and necessary,

BE IT Resolved that a vote of thanks be extended to the retiring President, Dr. B. F. Books, of Altoona, Pa., for his untiring energy in the cause of the society during the twelve months that he has been its chief executive. During this time Dr. Books has reorganized and organized more local organizations than any previous president of the State Society.

Be it further resolved that a vote of thanks be extended to Mr. A. J. Ford, the manager and the other attaches of the Buena Vista Springs Hotel for their courteous treatment of the members and guests of the society during its convention.

And be it further resolved that a vote of thanks be extended to Mr. W. H. Doll, General Agent of the Traffic Department of the Western Maryland Railroad, for his uniform courtesy in having arranged transportation facilities and in other ways having so willingly assisted the society. By his untiring efforts in bringing the convention to Buena Vista Springs he has enabled the society and its guests to enjoy the marvelous natural beauties of the Cumberland Valley. The facilities provided by the railroad for the thorough enjoyment of these beautiful views were thoroughly appreciated by those attending the convention.

And be it further resolved that a vote of thanks be extended to Mr. Paul J. McGahan, the Society's general press representative for his unceasing efforts and tireless energy in presenting to the general public through the newspapers, which have co-operated largely, the proceedings of the society.

And be it further resolved that a vote of thanks be extended to the chairmen of the various bureaus for their energy in

arranging the interesting scientific programs that have been presented.

And be it further resolved that a vote of thanks be extended to Dr. William M. Hillegas for the successful medical exhibit which he made possible only through zeal and energy.

And be it further resolved that a vote of thanks be extended to Dr. R. L. Piper, chairman of the entertainment bureau and Dr. W. N. Hammond, chairman of the membership committee, for their work for the society.

And be it further resolved that a vote of thanks be extended to Mrs. Wm. Alvah Stewart, president of the Woman's Homœopathic League of Pennsylvania, for her energetic and comprehensive work in interesting the women of the state generally in the cause of Homœopathy.

And be it further resolved that these resolutions be spread upon the minutes of the Society and the Secretary instructed to send a copy thereof to those named therein.

The President then declared the Fifty-second Annual Session of the Society adjourned.

CLINICAL CASES PRESENTED TO THE SOCIETY OF SURGERY, GYNECOLOGY AND OBSTETRICS, JANUARY 26, 1916.

BY

WILLIAM B. VAN LENNEP, A.M., M.D., F.A.C.S.

AN UNUSUAL SEQUELA OF APPENDECTOMY.

V. G., female, single, Italian, 22 years of age, was transferred to my service at Hahnemann by Drs. Bartlett and Golden for gastric ptosis, and operated in clinic on December 1, 1915.

She presented the virginal type of Glénard's Disease, with narrow interspace between the rib-borders, a long chest, a sunken epigastrium in which aortic pulsation was readily felt, while by contrast the lower abdomen appeared plump, and the pelvis unduly broad.

Radiograms taken in the erect posture, after Bismuth meals, showed the greater curvature to be about two inches below a line from one anterior-superior spine to the other, the organ presenting the characteristic fish-hook shape with drawn out cardia. Stasis in both the colon and ileum were noted.

The liver was hung up by dividing the round ligament between ligatures, and carrying out the ends on the upper limb close to the ensiform process and tying them. The stomach was attached to the abdominal wall after the method of Rovsing, by picking up its anterior surface with three sutures of Pagenstecher thread for a distance of about four inches, avoiding the antrum, and applied one inch from either curvature, with the third about midway between. The upper surface of the liver and the under surface of the diaphragm, as well as the portions of the gastric and parietal peritoneum to be brought together, were vigorously rubbed with gauze to hasten adhesion. The gastric sutures were then brought out through the abdominal wall about two inches from the wound, and the three ends tied together on either side. The gastro-colic omentum was short, thick and fat, so that colopexy was not necessary. The right kidney was quite mobile.

The patient's chief complaint, however, was pain in the right iliac fossa. She presented here a transverse scar, through the wound of which her appendix had been removed during an attack, a year previously, at another hospital. After this she was perfectly well for about ten months, when this pain developed, being dull at times, while at others it was severe enough to cause fainting. She also had constant right-sided soreness on walking about, with relief when lying down. There was distinct finger-point tenderness at the McBurney point, as well as at both Morris points. On examining the caecum the fimbriated extremity of a large pus-tube was attached like a bell over the junction of the longitudinal muscular bands, or at the attachment of the appendix. The uterus lay against the right wall of the pelvis. When the tube was pulled away from the intestine, to which it was fastened by comparatively soft adhesions, pus oozed from the former, while faeces and gas came out of the caecum through a clean-cut opening, as large as a good sized-pencil; no sign of appendiceal stump, of suture or ligature. Certainly a protective, burying suture had not been applied, probably a single ligature or a single suture after the appendix had been cut off flush with the caecal wall. A distinct Lane kink in the terminal ileum was corrected by dividing and wiping down the ileo-caecal fold.

The lesson is obvious, and nature's rescue very curious if not problematical.

The opening in the caecum was sutured with catgut, forti-

fied with a purse-string suture of celluloid; the tube was tied off and the uterus allowed to fall back into place. Recovery was uneventful, and the stomach sutures were removed at the end of four weeks, during which time she was kept on her back with the foot of the bed elevated.

A radiograph taken before her discharge from the hospital showed the greater curvature to be one inch below the umbilicus, after a full Bismuth meal and in the erect posture. The stasis in both the ileum and transverse colon had disappeared.

In these cases of the virginal type, with narrow interspace between the ribs, it is impossible to get room enough to draw out the stitches some four inches apart. Just as we fasten raw kidney to raw quadratus-lumborum, anchoring the organ low down, so we do with the stomach, and the fixation has invariably given relief, even if the elevation was not marked. In one of our clinical patients of the same type, an emaciated young woman with the stomach and colon well down, the fixation placed the lesser curvature not much more than an inch above the umbilicus, and yet the gastralgia and stasis disappeared and she put on between twenty and thirty pounds in weight during the ensuing six months. In her case hepatopexy and colopexy were also performed.

LEFT-SIDED BANDS AND MEMBRANES.

Most of us are familiar with the effects and causes of the lesions to which the term Lane's kink is applied, for while there are many who have contributed to our knowledge of the subject, Jackson, Jonnesco, Reid, Treves, Mayo and others, to Sir Arbuthnot Lane is due the credit, at least, of starting the ball rolling.

The effects are practically limited to distortion and consequent stasis, and they were formerly largely responsible for much persisting suffering after abdominal operations, notably those for appendicitis. The causes are more numerous; the results of inflammation may produce distortion anywhere and of any kind; those of congenital or developmental origin are due to errors in the migration, rotation and fixation of the initial colon and neighboring intestine during their journey from the left to the right side of the body, as well as to Nature's attempt to correct ptosis of the colon.

On the left side no such embryological causes exist, although,

inflammatory distortions are possible; but, with an overloaded sigmoid, it is more than likely that in her attempt to obviate the consequent sagging, Dame Nature may develop similar bands or membranes.

The following case is in point: D. W., Lawyer, 69 years old, patient of Dr. Eberhard, was operated at the Hahnemann Hospital, May 15th, 1914. He presented an ulcer of the rectum, with indurated edges and base, and a villous surface, for which he had been treated by someone else for about a year. It was on the posterior wall, well above the sphincter, but within easy reach of the finger, and was about the size of a silver dollar.

The coccyx was removed, the rectum freed and about three inches of its circumference excised, including considerable healthy tissue. The upper portion was still further freed, drawn down, and sutured to the lower limb, leaving a small opening posteriorly, through which a large tube was passed well up the rectum.

He made a nice recovery, the sinus healing with complete restoration of the bowel function. The microscopic diagnosis was adeno-carcinoma, and an area of healthy tissue was reported both above and below. The growth had not extended beyond the muscular coat.

During the early part of 1915, Dr. Benson treated him with radium for a suspicious ulceration and induration near the line of suture, with an accompanying mucous discharge. This cleared up and has remained so.

Last fall he was again treated with radium, and later with the Roentgen rays for a similar ulceration and thickening higher up in the rectum by Dr. Barker. He complained of pain, however, in the sigmoid, and developed progressive obstructive symptoms amounting at times to obstipation. The radiographs only showed a growth about the rectum, probably outside the bowel, and glandular, but the obstructive signs were in the sigmoid or even the colon, so much so, that we even hesitated about a left-sided colostomy which had now become necessary.

On opening the abdomen through the left rectus, the sigmoid was partially collapsed, or at least not distended, while the transverse colon and splenic flexure were ballooned. Just above the sigmoid there was a tense band retracting the colon and causing an almost complete obstruction. This corresponded very nearly to the parieto-colic band of Jonnesco, which we

meet with in the ascending colon. The same condition was induced higher up by a thin, non-vascular veil and a thick, fat, vascular membrane, precisely like those known as Jackson's on the right side. After these were nicked and wiped back, free peristalsis passed into and distended the sigmoid. No hepatic metastases were palpable.

An artificial anus after the method of Lilienthal was then made. A loop of colon was drawn out and the gut and meso-colon sutured to the parietal peritoneum, the proximal gut being left lax, instead of being drawn tense, to give an ampulla for storage like the rectum. The loop was then divided; the distal opening sutured to the lower angle of the wound to permit of washing out the sigmoid and rectum; the upper one twisted and sewed to the muscle and sheath, to give a sphincter action, and the balance of the wound closed.

The function of the anus is perfect, giving complete control of gas and stool. Laudanum has not been required, as it is necessary to use enemata to insure daily movements. Within a few days symptoms of bladder irritation suggest prostatic involvement which may call for the formation of a supra-pubic urethra after the method of Hunter McGuire.

A RESUMÉ OF INFANT FEEDING.

BY

CHARLES H. SEYBERT, M.D., PHILADELPHIA.

(Read before the West Philadelphia Clinical Society).

IN these very prevalent days of artificial feeding and patent foods, he who would successfully cope with the gastro-intestinal and nutritional disturbances of infancy, must needs have a proper understanding of the rudiments of infant feeding.

Breast milk being the natural food and the one upon which the child is most apt to thrive, it behooves us to use all available means to preserve its integrity,—through diet, exercise, rest, etc., on the part of the mother, before resorting to artificial methods.

It is surprising the number of infants one meets who have been deprived of this, their birthright, without the least attempt having been made to correct what may have been the disturbing

factor, chief among which is too frequent feeding. Breast fed infants, by virtue of this fact,—that their's is the natural food, receive more nourishment from it than do those artificially fed, consequently their requirements are not so great and for this reason do not need feeding at so frequent intervals.

By too frequent feeding the breast milk becomes inferior in quality in consequence of which we have an underfed, puny, irritable child, which condition if allowed to continue, will surely result in malnutrition or atrophy.

Another condition met with in breast fed children, and of which too frequent feeding is oftentimes the causation, is the spitting up of food accompanied or not by diarrhœic stools containing curds. This should cause no alarm providing the infant is gaining in weight and may be corrected by lengthening the interval.

Before absolute weaning from the breast is resorted to it is well to give the gland a rest and to employ or make use of mixed feeding, either supplemental or complementary.

By supplemental feeding, we mean entire breast feedings at certain hours alternating with entire bottle feeding at other times—if need be, both breasts may be nursed from at one feeding.

“Complementary” feeding on the other hand, is where the breast feeding is followed immediately by a bottle feeding—in order to determine the amount of food the child is taking, it should be weighed before and after nursing. The difference between what it gets and what it should have will be its complementary feeding. This difference is made up of a formula suitable to the child's age and fed from the bottle.

As sometimes happens, the child may refuse the breast after bottle feeding has been instituted, because of its preference for the latter. These cases may be obviated by removing the sugar in the formula.

	WOMAN'S	COW'S
Proteids	1.50	3.50
Fats	4.	4.
Sugar (Carbo-hydrates)	7.	4.50
Salts	0.3	0.7

Breast milk when compared with cow's milk is seen to contain less proteids and salts and more sugar, and it would seem

that all one had to do in order to render cow's milk as nearly like human milk would be to add water to reduce the proteids and salts, and sugar to increase the carbohydrates. This works out beautifully theoretically but not always so well practically, for whilst cow's milk and human milk have, to all practical purposes, the same chemical composition, physically, they are entirely different, the chief difference being that cow's milk curdles into a tough leathery mass while the human milk curd is a soft flocculent one.

The three requirements essential in the artificial feeding of infants are:

First, the food should contain the proper elements for the nutrition and growth of the child.

Second, it must be digestible.

Third, it must be of the proper quantity from a caloric standpoint.

Taking these up seriatim, let us first consider the proper elements which are the proteids, carbohydrates, fats, salts and water. The proteids are essential in that they replace the nitrogenous waste of the body cells through which the digestion and assimilation of the other elements depend.

Since cow's milk contains 3.5% proteids and breast milk 1.5%, this element of the food can be readily made to approach human milk by the simple dilution of water.

The fats possess the property of saving nitrogenous waste as well as adding to the body weight and to the growth of bone and the nerve cells and, while, theoretically, the infant should have 4% fat, from a practical standpoint, we find this to be a rather severe tax upon the child's digestive organs, hence cow's milk, when properly diluted, will be found to contain sufficiently high fats to maintain nutrition, particularly as the carbohydrates make up for or replace the loss.

The sugars mostly employed are milk, cane and malt; their chief use is to supply the heat and energy of the body.

When cow's milk is diluted, there is at the same time a reduction of the sugar which is too low for the child's needs so, in order to raise the carbohydrates to the proper amount an addition of 5% sugar is usually employed. This is equivalent to about one ounce in twenty ounces of the mixture.

The principal salts found in milk are calcium, magnesium, sodium, potassium and iron. They are necessary in the growth of body structures as well as for cell growth, and whilst exist-

ing in a larger amount in cow's milk, simple dilution is all that is required.

The water is necessary for the rapid elimination of waste material and at the same time gives the milk its liquid form adaptable to sucking.

In the digestibility of the different elements, the principal controversy of the present day seems to be in regard to the fats and proteids. Heretofore the proteids were thought to have been the all disturbing element, as a result of which top milk, cream and whey mixtures became very popular. The proteids were reduced to a minimum and the fats increased far beyond the infant's tolerance for them. That this theory has been disproven is shown by ample clinical evidence in which it has been found that by giving large amounts of casein it is often possible to control or cure cases of diarrhœa. The explanation being that the casein causes an increased intestinal secretion, which secretion being of alkaline reaction and rich in albumin, tends to neutralize the fermentative processes. In addition, the efficiency of fat free or skimmed milk in intestinal disturbances cannot be gainsaid.

The use of alkalies such as lime water to render the proteids more digestible is, excepting in special indications, losing its popularity; they were mainly employed to neutralize the acid gastric juice in order that the milk might pass into the intestines without curdling. One argument against their use is that through the alkalinity produced, there is apt to be a delay in the opening of the pylorus resulting in stasis with a subsequent dilatation of the stomach.

The boiling of the milk for its effect upon the proteids has some adherents, its virtue lies in the fact that it retards coagulation in the stomach. Some men go so far as to feed boiled milk exclusively at the same time adding orange juice to the infant's diet in order to overcome any tendency to scurvy or rickets.

The present status of cereal gruels to render the curds more flocculent is the same as it has been during the past few years. There are other advantages afforded by cereal feeding other than this, viz.: For their starch content, it is not advisable to use them in the earlier months, excepting, temporarily, because, at this time, due to the infant's inability to digest starch, their employment may cause gastric or intestinal indi-

gestion. After the third or fourth month, however, they may be used as a rule with impunity.

As a result of top milk, cream and whey mixtures, the fat of cow's milk has probably been the cause of more indigestion than any other element of the food. In their endeavor to overcome the deleterious effects of the proteids these "high fat" feeders seemed to have entirely overlooked the baneful effects of high fats.

An excess of fat is more difficult to dispose of than an excess of either the proteids or carbohydrates. This excess is not absorbed but remains in the intestines and is there saponified through the action of the alkaline intestinal fluids, as a result of which there is a drain imposed upon the alkaline bases of the body and the supply soon failing to meet the demand we have a relative acidosis produced. In addition we have weight disturbance characterized by fretfulness, pallor, constipation, flatulence and hard, dry, offensive stools of white and grayish color. Let it be understood that every child fed upon a high fat formula does not develop the above mentioned symptoms, but the number who do is sufficient to warrant our feeding on a more rational basis.

Until recently very little thought was given to the carbohydrates when Finkelstein called our attention to the disturbances caused by sugar which he called "alimentary fever" he showed that sugar, no matter from what source derived, might cause elevation of temperature with dyspeptic stools and that this condition cleared up when the sugar was removed from the food.

The kind of sugar one may preferably use is a mooted question. Some authorities claim that an ordinary infant having a normal digestive capacity, and never having had much digestive disturbance does well upon milk or cane sugar. Finkelstein and Meyer, on the other hand, believe that milk sugar is the primary cause of fermentative dyspepsia in infancy.

Some men claim that malt sugar is more laxative than either milk or cane while others state that the reverse is true. It seems however, that malt sugar is more easily digested and more assimilable than the other varieties. Because of the expense attached in its importation and manufacture, the malt sugar used in this country is combined with dextrin, dextrin being an intermediate between starch and sugar and is supposed by some to delay the fermentation of the latter.

The salts, likewise have attracted more attention in recent years than formerly. Many obscure intestinal fevers may trace their origin to the inorganic salts.

The sodium and potassium salts are poisonous to cell protoplasm but are counterbalanced by the calcium and magnesium. In excess, they cause an irritability of the nervous system and favor a retention of water. The calcium and magnesium salts on the other hand have a quieting effect. In excess they produce a lethargic condition while in a diminished quantity are apt to cause a hypersensitiveness of the nerves with a tendency to the spasmophilic diathesis.

The energy-quotient or the number of calories of food required daily varies with the size of the infant, the state of its nutrition, the amount of energy expended and heat lost. Ordinarily, infants under six months of age require about forty-five calories for each pound weight daily; while those over this age require about forty.

As to the methods of feeding there is no set rule, every child is a law unto itself. The formula must conform to the child and not the child to the formula. Since the fallacy regarding the proteids has been shown, top milk mixtures have fallen somewhat into disuse and, so, looking for a more balanced food in which the proteids have been increased and the percentage of fat reduced, it has been found that whole cow's milk seems to meet the demand in 75% of the cases.

The tendency today in infant feeding seems to lean toward simplicity. So much so that such men as Grulee, Dennett and Still, advocate simple dilutions of whole cow's milk allowing a certain number of ounces of milk for each pound body weight and bringing up the carbo-hydrates with a fixed amount of sugar without regards to percent, checking the whole to the caloric needs of the infant. In a majority of cases, this meets all of the requirements, but there are instances in which a better check upon the food must be had because of the infant's tolerance for the proteids, fats or carbohydrates. Under these conditions, we must determine the percentage in order to change the offending element to meet the child's tolerance, at the same time checking the whole food to meet the caloric requirements.

For every day needs the following table may be of help. During the first and second months use a one-third mixture consisting of:

Whole cow's milk	1/3	Proteids	1.1%
Plain water	2/3	Fats	1.3%
Sugar	5%	Carbohydrates	6.5-7%

Three, four and five months a half mixture consisting of:

Whole cow's milk	1/2	Proteids	1.75%
Weak barley water	1/2	Fats	2. %
Sugar	5%	Sugar	6.5-7%

From six to nine months a 2/3 mixture consisting of:

Whole cow's milk	2/3	Proteids	2.2%
Barley gruel	1/3	Fats	2.6%
Sugar	4%	Sugar	6.5-7%

From nine to eleven months a 3/4 mixture consisting of:

Whole cow's milk	3/4	Proteids	2.6%
Barley gruel	1/4	Fats	3. %
Sugar	4%	Sugar	6.5-7%

At twelve months the child should be able to take whole milk. In early infancy where there is a tolerance for proteids a 10% top milk mixture may be used. This contains a low proteid with a relatively high percentage of fats and sugar. Those infants having a sugar tolerance also do well upon top milk formulae.

A certain class of cases who do not seem to do well upon any kind of sugar may thrive upon malt soup extract made after Keller's formulae. Just why this is so has never been satisfactorily explained. Keller's malt soup extract is also of great value in obstinate cases of indigestion, weight disturbance and acidosis from high fat feeding, fermentative diarrhoea and in malnutrition. Skimmed or buttermilk are indicated in those cases showing a fat tolerance.

Finkelsteins' Eiweiss or albumen milk is almost a specific food in fermentative and putrefactive diarrhoeas. As a temporary expedient it has also been found to be beneficial in dyspepsia and in malnutrition or atrophy. Albumen milk has for its essential principle, the elimination of the whey thereby reducing the sugar as well as the sodium and potassium salts.

As to the intervals between feeding, there seems to be a general tendency towards longer periods. Most men favor a two hour schedule during the first month, gradually increased to two and a half hours until the third month and thereafter every three hours. There are some who advocate a four hour interval after the fifth or sixth month. This radical change does not seem warranted however, excepting perhaps in well nourished infants. Up until three months one night feeding is all that is necessary, after this time it may be omitted.

Incidentally, in passing, it might be well to recall that in the gastric digestion of milk, the carbohydrates are the first to leave the stomach, then the proteids, and lastly the fats. This is made practical use of when in feeding upon skimmed milk mixtures we feed more frequently than when using top milk or high fat formulae.

The quantity that an infant may take at a feeding does not altogether depend upon the actual capacity of the stomach, some of the food passing into the intestines before the feeding is finished. This being the case, it is a good working rule to allow a large infant or one of average size, one or two ounces more at each feeding than the number of months of its age up to eight or nine ounces; while, an undersized infant should have at each feeding, one ounce for each month of its age.

In conclusion, he who would successfully feed infants, must not only have learned the fundamentals of that which enters the gastro-enteric tract, but also he must have learned the correct interpretation of that which leaves this same tract; in other words, it is just as essential to correctly interpret or understand the bowel movements of an infant in order to determine the possible element at fault, as it is to know how, what and when to feed it.

**BUREAU OF MEDICAL EDUCATION AND LICENSURE OF THE STATE
OF PENNSYLVANIA—EXAMINATION QUESTIONS—MEDICAL
AND SURGICAL.**

FIRST SESSION, TUESDAY, JANUARY 18, 1916—2 P. M.

PHYSIOLOGY, PATHOLOGY, BACTERIOLOGY.

1. Name two bacilli that are apt to attack the respiratory tract. Describe the characteristic lesion of each. Outline the laboratory tests used in identifying each.

2. Describe briefly gastric digestion. Diagnose by laboratory methods each of two lesions which seriously impair it.

3. Outline briefly ways in which hypertrophied lymphoid tissue in the pharynx may be detrimental to health, (a) physiologically, (b) pathologically.

4. Given a case of pyuria (pus in the urine) outline the investigations and tests which may locate the source of the trouble.

5. Temperature of the body: tell briefly how the heat is produced, (b) how regulated, the (c) physiological and the (d) pathological significance of any increase or decrease from normal.

6. Describe the gross lesion in (a) tabes dorsalis, (b) apoplexy. What alteration in function does each produce?

7. Give a general outline of the essential equipment for a clinical laboratory. Outline the type of work which should be performed in such a laboratory.

8. Given a case of irregular fever in an adult which persists, give the laboratory tests which would aid in establishing the diagnosis.

9. State the significance of each of the following: (a) Jacksonian epilepsy, (b) choked disc, (c) Bell's palsy, (d) nystagmus, (e) Argyll-Robertson pupil.

10. Name three localized lymphatic glandular enlargements and give causes for each.

SECOND SESSION, WEDNESDAY, JANUARY 19, 1916—9 A. M.

SYMPTOMATOLOGY, DIAGNOSIS, TOXICOLOGY, MEDICAL
JURISPRUDENCE.

1. Enumerate the symptoms diagnostic of typhoid fever.

Name one disease with which it may be confused and differentiate them.

2. Enumerate the symptoms of cancer of the stomach. Differentiate it from cholecystitis.

3. Enumerate the symptoms of lobar pneumonia and differentiate it from acute pleurisy with effusion.

4. Enumerate the symptoms of scarlet fever. Name two sequellæ which may follow and describe the symptoms of each.

5. Enumerate the symptoms diagnostic of acute alcoholism. Differentiate it from uremia.

6. Differentiate the secondary eruptions of syphilis from other skin lesions.

7. Differentiate acute inflammatory glaucoma from iritis.

8. Enumerate the symptoms of chronic laryngitis. Differentiate it from laryngeal tuberculosis.

9. Enumerate the symptoms of ptomaine poisoning. Differentiate it from other forms of gastro-enteritis.

10. Name four conditions of a pregnant female in which a physician would be justified in causing premature birth. What are his duties from a medico-legal standpoint?

THIRD SESSION, WEDNESDAY, JANUARY 19, 1916—2 P. M.

OBSTETRICS AND GYNECOLOGY—PHYSIOLOGICAL CHEMISTRY.

1. Given a patient eight weeks pregnant with a retro-displaced uterus: How would you distinguish the displacement? What are possible results? How would you manage the case?

2. Given a case of labor with a prolapsed cord: What are the possible results? How would you manage the case? How would you treat the child after delivery?

3. Given a patient six hours in labor who has begun to bleed freely: What are the possibilities in the case and how would you differentiate between them? How would you treat any two of the possible conditions?

4. Given a patient with persistent itching about the vulva: Name four common causes for the condition. Give the local treatment.

5. Name four abdominal enlargements (as large as pregnancy at the seventh month) other than pregnancy. Differentiate them one from the other.

6. Name the more usual bacteria which cause puerperal fever, together with the methods of their introduction into the

birth canal. Name the results that may occur from their presence and the prevention of these possible results after the introduction of the bacteria.

7. Should you be called upon to deliver a woman at full term of pregnancy discuss the status of the use of (a) the vaginal douche; the use of (b) an anesthetic; the use of (c) ergot; the use of (d) pituitrin.

8. Discuss the thyroid gland from the chemical and physiological standpoints and state the effect of any change in equilibrium of the essential constituent.

9. Describe a test for each of the following pathological urinary constituents: (a) bile; (b) blood; (c) acetone.

10. What is cholesterol (cholesterin)? Where is it found normally, and in what pathological conditions is it of importance?

FOURTH SESSION, THURSDAY, JANUARY 20, 1916—9. A. M.

ANATOMY—SURGERY.

1. In a patient upon whom an abdominal operation is to be performed, what local and general preparation would you advise?

2. In posterior luxation of the hip joint: Give method of reduction, with anatomical and mechanical reasons for manipulations employed.

3. What conditions may cause gangrene of the leg? State indications for and against the amputation of a leg in which gangrene has occurred.

4. Name the more usual localities in which carcinoma appears. State the more usual early symptoms present.

5. What surgical conditions may cause hematuria? Give the special symptoms of any one surgical condition capable of causing hematuria, and outline the surgical procedure for its correction.

6. What blood vessels may be involved in severe expistaxis? Describe methods of controlling severe expistaxis.

7. In fractures of the bones of the forearm, state three forms of splints that may be employed. Indicate location of fracture in which you would employ each, with anatomical reasons for the selection of the same.

8. Enumerate the conditions that would warrant the amputation of a leg. Outline the technique of amputation of the leg (upper third). State the anatomical structures severed.

9. For what conditions may resection of the elbow-joint be performed? Outline the technique of the operation, giving the surgical anatomy of the parts.

10. Enumerate the various forms of hernia found in the groin. Upon what is the anatomical classification based? Describe a method of reducing by taxis in any one form selected, naming the form selected. Briefly outline the anatomical points to be considered in the radical operation for femoral hernia.

FIFTH SESSION, THURSDAY, JANUARY 20, 1916—2 P. M.

PRACTICE, MATERIA MEDICA, THERAPEUTICS, HYGIENE.

1. Give the medicinal and dietetic treatment, and state your reasons therefor, of a case of vomiting of pregnancy.

2. Outline in brief the effects of the excessive use of: (a) coffee, (b) tea, (c) chocolate, (d) alcohol, and (e) tobacco.

3. Describe the therapeutic action of: (a) cocaine, of (b) *veratrum viride*, and of (c) apomorphine.

4. Outline the treatment of a case of pneumonia: (a) during the onset, (b) during the height of the disease, and (c) during convalescence.

5. Describe the administration of: (a) spinal anesthesia. (b) What are the dangers of ether or chloroform anesthesia? (c) What precautions would you take in furtherance of their avoidance?

6. Outline the medicinal and dietetic treatment of chronic constipation. Describe any other means or measures you consider of importance in such a condition.

7. How would you combat therapeutically: (a) Excessive cough in tuberculosis? (b) a paroxysm of angina pectoris? (c) puerperal eclampsia?

8. Describe the local effects produced by a solution of: (a) Atropine sulphate, and of (b) pilocarpine hydrochlorate, when dropped into the eye. What strength of the solution of each would you prescribe for the usual purposes for which they are used? What are the contraindications to the use of each?

9. State what articles of diet you would prohibit and what ones you would permit in a patient with arterio-sclerosis and high blood pressure. What benefits would you expect from a reduction in weight of the patient?

10. How would you treat, other than by operative measures, abdominal ascites and the general œdema occurring as a complication in hepatic and renal disease?

EDITORIAL

"DRUGLESS HEALERS."

"WHAT should be the attitude of physicians toward the ever increasing number of drugless healers?" is a question that has rapidly forced itself to the front and one to which the medical profession must give an answer. Up to the present date, the attitude of the majority of physicians toward the various systems of drugless healing that have come into vogue has been that of indifference or of ridicule. Now, that we are informed by reliable statistics that there are some twenty-eight millions of followers of these various cults in the United States, physicians are beginning to realize that the matter can no longer be passed by in a light or jocular manner.

When we seek to explain the remarkable growth, both in the number and in the following of these various systems, we discover certain obvious factors that have contributed to it. In the first place, we are inclined to the opinion that in many of these systems there must be something of merit or they would not attract a large number of people for a considerable period of time, though it is true that in many instances that which is meritorious seems to be very minute in comparison with the mass of nonsense that coexists with it.

There is no doubt, however, but that the medical profession would have benefited many times by adopting certain methods developed by the followers of these cults, at least to the extent that such methods are in conformity with our knowledge of physical and psychological facts. If the inclination to refuse to adopt measures of probable value, because they have been exploited by charlatans and commercialists, were less strong, the *raison d'être* of many of these cults would be obliterated and many of them would cease to exist.

In the second place any careful observer of these cults must be convinced of the fact that *the important therapeutic principle common to them all is their psychic effect upon the patient.* We pride ourselves upon the intelligence and education of the

masses of our people, but when one comes to consider the attitude of the average layman toward medical affairs he is not deeply impressed with the sagacity and discrimination of the judgment exercised. This no doubt arises partially from the fact that it is extremely difficult for an individual suffering from disease to form any very discriminating idea of the character of the remedial measures that may be necessary to bring about a restoration to health. Consequently he is likely to be largely influenced by the alleged cures wrought among his friends and acquaintances. Inasmuch as the medical profession during recent years has reached that point of scientific modesty in which it is no longer considered ethical or respectable for a physician to speak of having wrought a cure and, as the enthusiastic advocate of the latest system of drugless healing is prone to proclaim his marvelous powers from the housetops, it is not to be wondered at that many persons are induced to place themselves in the care of those who give the most positive assurances of restoration to health.

On this account the drugless healer, despite the handicap of ignorance of scientific methods of diagnosis and treatment, frequently outstrips the trained physician in acquiring a practice and forcibly illustrates the truth of the modern aphorism,—"It pays to advertise."

In discussing this matter, we do not hesitate to accuse the dominant school of medicine of being responsible, to a large degree, for the growth of these systems of drugless healing.

One can scarcely pick up a newspaper or magazine without reading an article by some learned professor of medicine in which he advises the public of the danger involved in using drugs for therapeutic purposes, and usually closes with such remarks as "throw pyhsic to the dogs"; "there are only six drugs of any value in the *Materia Medica*;" "there is no medical treatment for typhoid fever"; "throw the medicine bottle into the ash heap;" and numerous other statements of similar character calculated to impress the public with the fact that physicians who employ drugs are not merely engaged in a fraudulent practice but even in a dangerous one. These statements may be strictly accurate when drugs are employed according to the method advocated by the physicians who are responsible for such articles and we might see a laudable reason for the publication of such statements were their effects merely

to warn patients away from their authors. Unfortunately, however, the innocent physician suffers with the guilty and the public are deluded into the idea that all medical treatment is deserving of the criticism that these high priests of the art have pronounced against it. We believe it is high time that such nonsense should cease, or at least that it no longer should have the apparent endorsement of reputable medical men. The physician who prepares articles to be distributed among the laity should use great care and discrimination in his words so that no reflection may be cast upon the medical profession and upon the careful and conscientious practitioners of the medical art. Such articles do no good and tend to drive persons in ill health to place themselves under the care of poorly equipped and frequently fraudulent exponents of pseudo-scientific cults, rather than to seek the advice of qualified physicians.

The last reason we shall refer to for the tremendous increase in the exponents of drugless systems of healing, is one that we mention with fear and trembling. As far as we know, no one has had the temerity to state what must be an obvious fact to every observer, viz., that the enormous increase in the time and financial outlay necessary to secure a medical education, has been a potent factor in driving many young men from the ranks of scientific medicine into the systems of drugless healing which promise big returns after brief and inexpensive period of preparation. We do not wish to be understood as advocating a quick and easy method of securing the degree of "doctor of medicine." We are thoroughly convinced of the importance and of the necessity for thorough and scientific training of the medical man before he is allowed to assume the responsibility of caring for the health of the people in our various communities, *but we do insist there is a reasonable limit to such period of preparation.* It is a grave question in our minds as to whether the enthusiasm of certain authorities has not already led them to advocate a period for medical education which is beyond the limits of practicability. The young man of small or moderate means who faces a period of eight years of medical study involving an outlay of cash of \$5000 or more is appalled and discouraged. When we consider further, what any intelligent man is quick to realize, that his opportunities of financial reimbursement are probably less after the completion of this long and arduous course than they would be were he to adopt the

practice of almost any of the popular healing cults, it is little wonder that many are turned aside and take the direction of least resistance.

The serious effect of an extreme policy in medical education is becoming apparent in its effect upon practitioners and upon the public. While the members of the Educational Council of the American Medical Association and the various committees of the Carnegie Foundation are congratulating themselves and the profession upon elevating the standards of medical education and upon cutting down the number of doctors turned out each year upon the public, the observant man is witnessing a spectacle that is far from pleasing or satisfactory. It is true that these scientific gentlemen have very materially reduced the number of trained medical men entering upon the practice of medicine each year, and, if that were all, we would be glad to join with them in congratulations and in felicitations. *The fact of the matter is, however, that the number of individuals going out each year assuming to care for the health of the community has enormously increased*, and for every man kept out of the practice of scientific medicine, two or three fill his place who have absolutely no preparation at all in any proper or scientific sense. If those who are largely responsible for this state of affairs, look to the medical laws to offset the effect of their extreme policies, they are sadly mistaken, for we know of no state in which any serious or effective attempt is made to control the practice of the type of practitioners to which we refer. As a result, we find the medical profession seriously handicapped in its work, scientifically and financially, and we find the public being made a prey of an ever-increasing number of ignorant, unscientific and frequently fraudulent practitioners who are a disgrace to any intelligent community and a serious menace to its health.

Finally we cannot help but feel that many of these cults have arisen because many physicians have lost sight of the fact that the great aim and object of the physician is the prevention of disease and the healing of the sick. If this were the prime motive in the life of every medical man we would not hesitate to adopt new measures of therapeutic value no matter what their origin might be; we would not be engaged in useless attempts to disseminate the evils of excessive drugging among the laity, but would rather be seeking effective means of employing drug

agents in restoring the sick to health; we would not be engaged in drawing out the length of medical courses by the introduction of superfluous and useless material, from which the practical physician can hope to obtain but little that will assist him in the prosecution of his proper function, but would rather seek to obtain such efficiency in a reasonable period of time as would supply the public with an adequate number of conscientious and practical medical men. Until the medical profession is ready to take such a stand, it is useless to oppose by legal prosecutions those engaged in the exploitation of the public under the guise of "drugless healers." G. H. W.

HAHNEMANN AS A PSYCHO-THERAPEUTIST.

THE more one studies the works and writings of Samuel Hahnemann, the more one is impressed by his profound knowledge of the art of therapeutics and by his superiority over the average medical man of one hundred years ago. In the present issue of *THE HAHNEMANNIAN MONTHLY* will be found a letter written by Hahnemann in which he advises a patient as to the influence of habits of thinking and living upon bodily health. At this date, when we are inclined to consider psychotherapy as a product of the Twentieth Century, we are astonished to learn the extent to which Hahnemann recognized and employed psychotherapeutic principles which are even now new to many medical practitioners. Hahnemann's letter is one that every physician should read with profit and with interest and, if he is a wise physician, he will place a copy of it in the hands of his nervous patients. G. H. W.

GLEANINGS

THE VALUE OF THE LACTIC ACID BACILLUS.—It is one of the ironies of fate that the reputation of Metchnikoff rests, in the minds of many of the medical profession, and certainly amongst the laity, upon his suggestion that the lactic acid bacillus, by preventing the growth of putrefactive organisms in the alimentary canal, exercises an advantageous therapeutic effect. When the suggestion first appeared some enthusiasts went so far as to claim that the degenerative changes, which are coincident with advanced years, are dependent upon the absorption of poisons made by putrefactive organisms, and that the constant ingestion of lactic acid bacilli would prolong youth and increase the span of life. It goes without saying that such views are erroneous, and that while the lactic acid bacillus is of considerable value in a limited class of cases, it is by no means a cure-all and, like all remedial agents capable of doing good, is capable of doing harm if administered when its effects are capable of increasing rather than diminishing the difficulties under which the patient labors. Briefly stated, it may be said that when putrefactive organisms are breaking down protein substances a pure culture of the lactic acid bacillus may be administered in many instances with advantage. Whereas, on the other hand, if the digestive disturbance is due to the fermentation of starches or sugars it will make matters worse, increasing the fermentation and the acidity.

It is interesting in this connection to remember that Herter and Kendall as long ago as 1908 showed that it was possible, by feeding monkeys for two weeks on nothing else but milk containing the bacillus *bulgaricus*, to induce or maintain the acid reaction from one end of the alimentary canal to the other, but they also found that its efficiency was chiefly above the ileocecal valve, which, of course, is not the area in which a large amount of absorption of putrefactive production takes place. The important part of the alimentary canal in such a process is therefore comparatively little influenced.

More recently Raehe has gone much further and shown that this bacillus does not grow readily in the colon, although it seems to be able to survive over a considerable period of time in the small intestine, multiplying there and adjusting itself to the conditions which exist.

It is unfortunate, but nevertheless true, that remedial agents are found sooner or later to possess distinct limitations of value. It is perhaps even more unfortunate that they are, when first brought forward, received with so much enthusiasm that erroneous conceptions of their actual value are widely disseminated, and being widely disseminated are correspondingly persistent, with the result that they are used carelessly, or distinctly abused, and, what is worse, the patient for whom they are prescribed may be also

abused. The moral is that the physician must have a clear idea of what he ought to do and a definite understanding as to what his remedies can do.—*Therapeutic Gazette*.

THE TREATMENT OF INFECTED WOUNDS.—At the Royal Society of Medicine on Oct. 8, Colonel Sir Almroth Wright, illustrated in a demonstration by himself and his distinguished pathological workers, how he proposed to alter the practice of military surgery in many directions. Phenol is the agent which will assuredly effect the surgery of peace as well as of war. We have been, Wright suggests, relying on outside aid when the tissues and fluids of the body were sufficient for the task, and required merely some kindly assistance in performance of their delicate functions, not the repelling interference of protein chemicals. That the chemical substance often did no harm is but a qualified testimonial to its value, and in Wright's estimate an antiseptic substance, like iodine, applied to the outlet of the wound served at most to disinfect its excreta, as it never came into intimate contact with the wall itself, in which the delicate biological processes were taking place.

Of the body tissues the blood cells are naturally those the most easily examined, both because they can the most readily be withdrawn from the body for examination and because the conditions of their action can be fairly reproduced *in vitro*. We use the phrase *in vitro* advisedly rather than "in the test-tube," as for these and similar investigations the test-tube has had to give place to the capillary tube in various forms, but all forms such as can be fashioned by the unaided hand of man from simple glass tubing with the help of a gas or petroleum flame. By experiments conducted in capillary tubes it can be shown that the presence of chemical disinfectants does not produce all that has been expected on an infected blood-clot. The same organism which is powerless to pass a wall of leucocytes, and which is so weakened by exposure overnight to normal blood serum that it no longer multiplies on nutrient media, "likes," as one worker has put it, "to have its tail dipping into carbolic."

At the beginning of the war acquaintance, dropped for the life-time of most of us, was renewed with the bacillus perfringens. In countless cases where the tissues had not merely been infected but extensively bruised and lacerated, an ominous crackling began to appear, with an evil smell and an intense and frequently fatal systemic poisoning. Every kind of strong chemical was used in the treatment of these wounds, but the bacillus appeared practically invulnerable, and the successful cases were, as we know, especially from the German side, those in which the whole infection was cut away *en masse* with the knife. Sauerbruch, one of the deftest of surgeons in the German profession, at all events assured a great surgical congress at Lille that this was the only method which he had found to give success. Contused and lacerated wounds have occurred in plenty in this war. Gas may bubble out of some of them, but there is no septic absorption when the wounds are sufficiently opened and drained. A strong solution of common salt produces a copious flow of plasma which cleans up the wound. "Keep moving, please," is the instruction to the microbes, "and move outwards only." If sufficient emergency exits are provided the traffic is not allowed to get congested at narrow places, fast

in the center and slow along the edges, with backwaters at each end where the flow is intermittent; but by the sympathetic study of the physical principles underlying drainage the flow of serum and of leucocytes is kept continuous. On the internal wound surface the corpuscles form a layer which the microbes cannot penetrate. Their presence in the wound does not matter; it is what passeth into the man that defileth. The uniform flow of plasma is always washing out into the draught the microbes in the wound; some of these the plasma can deal with itself, and if it is long enough in contact with them it may even render them innocuous. Among these is the *bacillus perfringens*. The remainder, streptococci and staphylococci, fall a prey to the leucocytes.—(*Lancet*, Oct. 16, 1915.)

PROPHYLAXIS AND TREATMENT OF SCARLET FEVER.—Chantemesse, in *Bulletin de l'academie de medecine* for December 7, 1915, reports his experiences in a French military hospital with Milne's management in scarlatina. The procedure, which is applied as soon as the diagnosis is made or even if the condition is only suspected, consists in swabbing the tonsils and entire pharynx with a ten per cent. solution of phenol in oil, and in rubbing oil of eucalyptus quickly over the patient's entire body, including the scalp. The throat swabbing is repeated every three hours, day and night, for the first forty-eight hours, then twice daily for a week longer. The eucalyptus rubbing is carried out twice a day on the first two days, then daily for twenty days, and finally on alternate days up to the thirtieth day. Phenol intoxication, which might occur in small children through ingestion of the oil containing it, is guarded against by keeping a watch over the color of the urine in these little patients. Among thirty-one cases of scarlet fever treated under his supervision, Chantemesse observed no instance of transmission of the disease. The only person who acquired the disease in the hospital was a nurse who received the patients on admission and made the first prophylactic applications to their throats and skin surfaces, and was therefore exposed to the virus before its transmission could be prevented. Beside emphasizing the prophylactic value of Milne's method, Chantemesse praises the latter as a remedial agency. Twenty-seven of his thirty-one cases went through only mild, uncomplicated attacks as a result of the treatment applied, the temperature always dropping to normal within forty-eight hours and complications not appearing. In the remaining four cases fever persisted ten days. These had been admitted only when the eruption had already existed several days and fever was already high. In two the swollen tonsils prevented proper disinfection of the pharynx, in another nephritis preexisted, and in the fourth intense albuminuria was noted on admission. The only complications observed in the entire series were one instance of otitis media and one of temporary albuminuria, each condition appearing during convalescence, about the thirtieth day of the disease. Rubbing the oil of eucalyptus over the skin at the time of appearance of the eruption was observed, in one case out of ten, to cause itching, which, however, always disappeared permanently within twenty-four hours upon discontinuing the procedure for one day and applying talcum powder. All patients were kept on a milk diet until the twenty-first day.—(*N. Y. Medical Journal*.)

CABOTISMS.—Being Aphorisms on physical diagnosis, selected from the writings of Richard C. Cabot.—*The Tongue.* A clean tongue in a dyspeptic suggests hyperacidity or gastric ulcer. This point I have found of more value than any inference from a coated tongue.

The Gums. The deposit of lead sulphide in (not on) the gums is not blue, but gray or black; and is not a line, but a series of dots and lines arranged near the free margin of the gums and about one millimetre from it. Where there are no teeth there is no lead line. In faint or doubtful cases a hand lens is of great assistance and shows up the dotted arrangement of the deposit very clearly. It is unfortunate that the term 'blue line' has become attached to these gray-black dots.

The Pupils. The value of the pupils in diagnosis has been greatly overestimated. There are, in fact, comparatively few conditions in which they yield us important diagnostic evidence, for although they are very often abnormal, the abnormalities are seldom characteristic of any single pathological condition and throw little light on the diagnosis.

The Hands. The manner of shaking hands gives us vague but useful impressions of the patient's temperament. The nervous, cramped, half-opened hand, which never really grasps and gets away as soon as possible; the firm, hearty grasp; the limp, 'wilted' hand—furnish hints of character that every physician must take account of.

The Chest. It seems to me a mistake to divide the chest into arbitrary portions and to describe physical signs with reference to such division.

The Barrel Chest. Nothing is less like a barrel than the 'barrel chest.' Its most striking characteristic is its greatly increased anteroposterior diameter, so that it approaches the form of the infant's chest.

The Caput Medusae. Enlarged veins about the navel, the so-called 'caput Medusae,' are commonly found in textbooks, but rarely in cirrhosis of the liver.

Percussion. There is no other method of physical examination which needs so much practice as percussion, and none that is so seldom thoroughly learned. Many physicians never succeed in acquiring a facility in the use of it sufficient to make them rely upon their results. Undoubtedly one of the greatest difficulties arises from the necessity of being at once active and passive—at once the percussor and the one who listens to the percussion. Students half unconsciously get to treat the percussion as an end in itself, and hammer away industriously without realizing that two-thirds of the attention must be given to listening, while the percussion itself should become semi-automatic.

Selection of Stethoscope. It is as rash for anyone to select a stethoscope without first trying the fit of the ear pieces in his ears as it would be to buy a new hat without trying it on.

Use of Stethoscope. The chief point to be learned is to disregard various irrelevant sounds and to concentrate attention upon those which are relevant. Almost anyone hears enough with a stethoscope, and most beginners hear too much.

Myocarditis. A well-known pathologist recently told me that he had never known a case of myocarditis correctly diagnosed during life.

Examination of Children. Children almost always cry if made to lie down flat. If we wish to bring out the cry sound in order to test the

vocal and tactile fremitus, this is a simple and humane method of producing it. If, on the other hand, peace is what we most desire, it is best to avoid putting the child in a recumbent position.—*Medical Review of Reviews.*

CLINICAL ASPECTS AND DIAGNOSIS OF PARATYPHOID FEVER.—By J. A. Torrens and T. H. Whittington.—Paratyphoid may be so mild and atypical that a complete bacteriological examination is required for diagnosis, or it may be as severe and typical as typhoid itself. It is difficult and unprofitable to attempt to distinguish clinically between paratyphoid A and B. The A. form usually lasts from two to three weeks, the B. from ten to eighteen days. About sixty per cent. of patients feel ill before the onset of marked symptoms, while the remainder are suddenly seized with chill and collapse. The common symptoms in order of frequency are: Headache, in eighty-five per cent.; diarrhea, in fifty-five per cent.; abdominal pain, in thirty-five per cent.; aching pains in the limbs, in thirty per cent.; shivering, extreme general weakness, and backache, each in twenty-five per cent.; and epistaxis in twenty per cent. Differing from typhoid patients, those with paratyphoid are usually dull and heavy, but can readily be aroused to mental clarity. The temperature has little tendency to the step ladder rise of typhoid, and is seldom high. The pulse is almost always slow, actually as well as in relation to the height of the fever. The blood pressure is also usually low. Large rose spots are both common and abundant, and occur up to late in the disease. The fever usually falls by crisis or short lysis. Complications and sequelæ are the same in type as after typhoid, but are less frequent and less severe. Hemorrhage is, however, quite common on account of the usual involvement of the large bowel in the inflammatory process. Paratyphoid B also shows considerable tendency to produce purulent lesions, such as orchitis, periostitis, empyema, and liver abscess. Both A and B forms tend to manifest brief relapses of mild type. The mortality of paratyphoid A is less than one per cent., that of B a little more than four per cent. Positive diagnosis can be made only in one of two ways; either by the isolation and cultivation of the paratyphoid organisms from the blood, stools, or urine, or by agglutination tests.—*British Med. Journal.*

TREATMENT OF PNEUMONIA WITH ETHYLHYDROCUPREIN.—Loeb treated 30 cases of croupous pneumonia in the course of a year in a Garrison Hospital, making use of chemotherapy. The patients were from 17 to 30 years of age and with several exceptions were robust men. No mild cases are included in the series. Six patients only received symptomatic treatment—the first to be admitted. The remainder received the specific treatment, as a rule alone, but in a few cases with the addition of wine and digitalis. All went to show that the remedy antagonizes sepsis. It should be given early, as soon as chill, fever, pains in chest and cough have appeared, and without waiting for a full diagnosis. The author actively recommends this course to the general practitioner. By the second day a sort of crisis should occur, and in individual cases the crisis is complete. As a rule, however, there is a recrudescence on the third or fourth day so that the drug must be repeated. In one case the recrudescence consisted of the appearance of the disease in the entire opposite lung and

approaching heart failure, which was antagonized by stimulants. It was surprising that this patient, with two crippled lungs, respiration of 48 and pulse of 120, nevertheless felt well and had no rise of temperature. The collateral overaction of quinine is sometimes in evidence, and then the author calls off the remedy for 12 hours.—*Med. Record.*

EPIDEMIC SEPTIC SORE THROAT.—Any physician who has had occasion to treat a case of septic sore throat will admit the seriousness of the condition and recognize the gravity of the complications which may develop. Unfortunately the treatment is of little effect and therefore the greatest stress must be laid on the prophylaxis. Krumwiede and Valentine were able to study an epidemic of two hundred and thirty-two cases and traced the source of the infection to the milk supply (*Jour. Med Research*, 1915, XXXIII, 231). On further search they found that the beginning of the trouble was the appearance of a sore throat in one of the persons at the dairy and that from this person it spread to a milker and from him to the cow. Streptococci isolated from one cow showed cultural characteristics identical with those isolated from patients although the cow gave no evidence of mastitis. On the other hand one cow in the herd which obviously had a mastitis, showed a streptococcus which was different and which probably had no relation to the epidemic. They show that the use of poured blood agar plates is quite essential for the recognition of hemolytic streptococci which are characteristic of the disease. This is strong confirmatory evidence, were it needed, that such milk-borne epidemics are primarily of human origin and that careful supervision of the personnel of the dairy is all-important. At the same time it emphasizes one of the dangers against which the inhabitants of this city are protected by the Health Department's regulation demanding the pasteurization of the milk supply.—*Medical Record.*

THE CITRATE METHOD OF BLOOD TRANSFUSION IN CHILDREN.—R. Lewisohn, New York, (*American Journal of Medical Sciences*).—Lewisohn recommends his method of transfusion as particularly applicable in children, in whom the older anastomotic methods are notoriously difficult. The technique is the same as that for adults. The donor's vein can be punctured proximally or distally, the direction to be chosen according to the individual case, whichever way the blood runs with the greatest facility into the glass receptacle. The blood is mixed in the glass jar with a 2 per cent. sterile solution of sodium citrate at the ratio of 1 to 10 (*i. e.*, 10 parts of solution to 100 c.c. of blood). For the reintroduction of the blood a very fine needle or cannula can be chosen. Thus one can inject the blood even in small children through a superficial arm vein of the finest caliber. This obviates any extensive dissection. By using so fine a needle one assures the slow injection of the blood and prevents the danger of sudden overloading of the circulatory system. The salvasan flask is attached to a stand and the blood allowed to run into the vein drop by drop (in 1 case the injection of 350 c.c. thus took nearly an hour, and the three-year-old child stood this rather large quantity of blood very well, just on account of the slow injection). Lewisohn reports seven cases of transfusion in children, all of whom received profound benefit; in some the transfusion appeared life-saving.

RAPIDITY OF PULSE.—Twenty patients examined by Boney when first seen all presented the same general characters—a tired, listless expression, fatigue on walking a few yards or after a few simple exercises, and in one or two cases undue shortness of breath after any such slight exertion. In no case was any complaint made of pain, palpitation, or other subjective symptom. With possibly one exception there was no evidence of dilatation of the heart in any of them. None presented signs of hypertrophy. In every patient the position of the apex beat was within the nipple line. The cardiac impulse was not forcible or heaving, in fact, in some cases it was so weak as to be difficult of localization. The heart sounds were normal in character and correctly spaced. Accentuation of the pulmonary second sound was absent and no reduplication was observed. No form of irregularity was present.

With regard to the character of the pulse, in every patient except one the rate was normal while lying down. The volume was good, and no irregularity in rate or force could be detected by the finger. The tone of the vessel wall appeared good, but as a certain number of them showed thickening of the vessel wall (in five of them it was marked, although no cardiac hypertrophy was present) it is difficult to generalize about this. Blood pressure in the radial measured by a Riva-Rocci manometer varied from 120 mm. to 140 mm. Hg. In no case was there any diastolic murmurs. On slowly assuming the erect position, in six patients only did the pulse keep within what was considered normal limits. In the remaining fourteen the rate was enormously increased, in some cases going up to 130 or even 140—in one case to 156. In the six cases to which exception was made on standing up the rate was increased by 15 to 25 beats a minute. There was a trace of albumin in one specimen of urine only. Other evidence of vasomotor instability was to be found in various circulatory disturbances exhibited in some cases. Cold hands and feet, even when warmly wrapped up in bed, were commonly noted, and in two patients flushing of the face was so marked as to be spontaneously remarked on by an independent observer. A "tache" could be obtained in two cases. Boney believes that everything points to a central lesion of the controlling nervous mechanism. —(*British Med. Jour.*)

PROGNOSIS IN CARDIOVASCULAR DISEASES.—Satterthwaite, (*Medical Record*,) emphasizes the fact that no matter what the nature, location and extent of a valvular disease, the prognosis does not depend so much on the valve affection itself as on the condition of the myocardium. Complications must be taken into account. Among the most important considerations are the station in life occupied by the patient, his temperament, his occupation and his environment. The method of treatment has an important bearing on the prognosis. Blood pressure has much to do with the prognosis. A high blood pressure is a bad sign, even in the absence of interstitial nephritis. When the high pressure can be relieved by an appropriate dietary, laxatives and suitable medication, the danger to life is lessened, but even if the pressure has been reduced to the standard for the individual, it is still not a guarantee against arterial hemorrhage, though the expectation of life is improved. In all persons subject to high pressure, there is especial danger of cerebral hemorrhage or heart failure;

for, even if the coronary arteries are not involved, increased pressure indicates that the heart is doing more than its normal quantum of work. So far as interstitial nephritis is concerned, Satterthwaite says, it need not necessarily be a bugbear. The most important sign of the approaching end is cardiac weakness that cannot be controlled by ordinary dosage with the group of remedies of which digitalis is the chief. The conditions of the arterial system must always be taken into account in making a prognosis.

POISONING BY MERCURIC CHLORID AND ITS TREATMENT.—The treatment, as it is formulated by Lambert and Patterson, for cases coming under observation early, is as follows: The first indication is to give the patient the whites of several eggs and then wash out the stomach thoroughly. This has usually been done before the patients are admitted to the hospital. On admission, the stomach contents are expressed and examined for mercury, the stomach is thoroughly washed and a pint of milk introduced. If no stomach contents are obtained before lavage, then the lavage water is examined for mercury. Urine passed spontaneously, or that obtained by catheter, is examined for mercury. The metal appears in the urine in from three to twenty-four hours after it has been swallowed. If more than a day has elapsed since the poisoning occurred, a stool should also be examined for the poison. If the first lavage does not allay the nausea and vomiting, it is repeated after an hour, and the following routine is begun as soon as the stomach will permit: 1. The patient is given every other hour 8 ounces of the following mixture: Potassium bitartrate, 1 dram; sugar, 1 dram; lactose, one-half ounce; lemon juice, 1 ounce; boiled water, 16 ounces. Eight ounces of milk are administered every alternate hour. 2. The drop method of rectal irrigation with a solution of potassium acetate, a dram to the pint, is given continuously. The amounts of urine secreted under this treatment are very large. In Case 8, 269 ounces were passed in twenty-four hours on the fourteenth day of treatment. 3. The stomach is washed out twice daily. 4. The colon is irrigated twice daily, in order to wash out whatever poison has been eliminated in that way. 5. The patient is given a daily sweat in a hot pack.

The authors emphasize the necessity of keeping up the treatment with the colonic drip enteroclysis day and night without interruption. In cases in which one single dose has been taken, after two negative examinations of the urine, on successive days, it seems legitimate to stop the treatment. For the less severe cases, a week may be a sufficient time for treatment. When large or successive doses have been taken, or when there is a preexisting kidney lesion, or when treatment begins several days after the poison is taken, longer periods of treatment, up to three weeks, are necessary.—*Archives of Internal Medicine*.

THE OPERATIVE TREATMENT OF VARICOSE VEINS AND ULCERS BASED UPON A CLASSIFICATION OF THESE LESIONS.—Homans J. (*Surg., Gynec. & Obst.* 1916, XXII, 143.)—The author in a review of the classical operative procedures for these conditions believes that for a successful result, it is necessary to definitely diagnose the existing condition as to the veins involved.

He emphasizes the anatomy of the superficial and deep veins. That they are connected by perforating or communicating veins whose bi-cuspid valves normally allow the blood to flow only in one direction, i. e. from the superficial to the deep. They thus act as a safety valve and relieve the superficial veins of their work.

He gives the causes of varicosities as heavy lifting, lack of muscular exercise, pregnancy, congenital defects in the valves and infection as the thrombo phlebitis following typhoid and pregnancy.

The common variety of varicose veins is dilated, sclerotic, tortuous, sacculated and calcified. Ulcers when present usually ride the vein.

He divides them clinically into surface varicosities and surface complicated by varicosities of the perforating veins.

Simple varix of the superficial veins is determined by the Trendelenberg test. If the communicating branches are involved, elevate the leg and empty the superficial veins. Then apply a moderate constriction around the upper thigh. If varicosities are of the superficial veins alone they will refill below the constriction in from 45 to 60 seconds, but if the communicating veins are also involved it will require from only 10 to 20 sec.

The operative procedure for varix of the surface veins alone may be 1. The Trendelenburg. 2. Multiple divisions of the great saphenous (Schwartz.) 3. Madelungs full excision of the great saphenous vein. 4. Excision of tributaries that lead to ulcers and immediate Thiersch skin graft if a large area is left exposed.

In cases of varix of the perforating branches complicating superficial varix, excise the great saphenous vein and dissect back large thick flaps to expose the deep fascia of the front and inner side of the leg (Madelung.) Dissect the surface veins from the flap and tie off the perforating branches as they are found beneath the deep fascia.

If the leg below the knee is so oedematous as to prevent the dissection of the large flaps the spiral cut of Rindfleisch, a modification of the Schede, or the multiple incisions and ligations upon the leg of the perforating channels at several sittings (Novaro.)

Immobilize the knee and ankle for two weeks after operation by a crinoline bandage with or without a ham splint. Support from the toes to the knee must be worn several weeks after the patient is out of bed.

J. G. SPACKMAN.

A CONTRIBUTION TO THE SUBJECT OF SKULL FRACTURES.—Besley F. A. (*J. Am. M. Ass.* 1916, LXVI, 345.)—Besley in a review of 1000 cases of fractured skull treated at the Cook County Hospital of Chicago, believes from his observations that the theory of fractures of the base from an inbending and from bursting at a distance from the point of applied force is wrong.

He believes that owing to the fact that the articulation of the condyles with the atlas is a fixed one that fractures of the base are due to the force transmitted by the condyles. He has never observed at autopsy a fracture of the posterior fossae that was not a continuation of a fracture of the vault.

He points out the following aids in diagnosis. 1. Roentgenograms as the most valuable and conclusive. 2. Signs of increased intra-cranial

pressure shown by unconsciousness, slow pulse, high blood pressure, choked disk, embarrassed respiration and vomiting. 3. Focal signs depending upon the area involved. 4. Continuous bleeding from the ear as pathognomonic of fracture of the base. 5. Involvement of any of the cranial nerves, the 6th, being the most frequent.

No positive evidence is shown by the temperature curve. The average temperature of those who recovered was 100F., of the fatal cases 102F.

Protrusion of the eyes was noted in 9 cases. No cases of pulsating exophthalmus were seen.

Patellar reflexes increased in 67. Absent in 50. Others not recorded.

Babinsky reflex in 55. Kernig in 8. General convulsions of arm in 6. Leg 2. Complete muscular paralysis of face 47. of legs 55. Arms 58.

Thirty-six per cent of all the cases vomited and in 11 it was almost entirely blood.

J. G. SPACKMAN.

OPERATIVE TREATMENT OF GUNSHOT INJURIES TO THE PERIPHERAL NERVES.—Schiffbauer H. E. (*Surg., Gynec. & Obst.* 1916, XXII, 133.)—The author reviews his experiences in the Hospitals of Königsberg, Constantinople and Budapest.

He gives as indications for operation, loss of motor, sensory, trophic and vasomotor function; paralysis of all muscles supplied by a particular nerve and presenting the reaction to degeneration.

In cases where only part of the muscles are affected and there is not marked improvement at the end of eight months, operation is recommended.

The author favors early operation as soon as the infection has subsided. In clean infantry wounds three to six weeks. Badly infected ones, six to eight weeks.

When operation is delayed, the scar tissue is more dense, the injury to the nerve from scar-tissue and calus is greater, joint deformity is more pronounced as the result of long continued muscular contraction.

The nerve may be completely torn, the gap being filled in with scar-tissue. There may be constricting bands around the ends of the nerve, neuroma formation at the frayed ends. Haemorrhage under the perineurium may cause loss of function.

The points essential to a successful result are accurate coaption of the ends, retaining the anatomical relationship, asepsis, no haematoma formation, early active and passive motion, heat and electricity.

All scar-tissue must be removed. Hofmeisters diagnostic injection of one-half percent of novocain to which has been added, one drop of suparenin to ten centimeters. This is injected beneath the perineurium and removes all septa that may exist. The nerve ends should be resected until the nerve appears to be histological normal. The nerves are sutured through the perineurium only with six to ten sutures of fine catgut. Fat, fascia and veins may be used to protect the suture lines.

In conclusion he believes that the longer the nerve course is broken the slower the regeneration. 2. The farther peripheral the injury the more quickly the nerve regains function after operation. 3. The larger the nerve and the more central the injury the slower the return of function.

J. G. SPACKMAN.

CAULIFLOWER EAR.—Palmer D. H. (*J. Am. M. Ass.* 1916, LXVI, 422.)

—The author describes a successful operative procedure as follows.

The causative factor is usually a glancing blow which folds the ear upon itself. The hemorrhage resulting beneath the perichondrium causing the deformity. If the case is an old one this organized clot may be hard and calcified.

Any skin preparation may be used except iodine. 2. Plug the external meatus with cotton. 3. Incision under a local anesthetic just below the most prominent part of the swelling through the skin and perichondrium. 4 Remove all clots with a curette. 5. Close the incision with the exception of a small opening large enough to admit a eustachian catheter to which is attached a waste bottle and a small Pyncheon pump. This suction allows drainage, removes all clots that form and secures a continuous approximation of the skin and perichondrium with the cartilage. 6. Apply sterile petrolatum to the parts. 7. Make a mould around the ear and pour into this mould a cup full of plaster Paris cream. 8. As the plaster hardens remove the catheter with a slightly rotary motion. 9. Apply gauze and adhesive. Remove the cast by piece meal at the end of ten days.

J. G. SPACKMAN.

RESTORATION OF THE BILE PASSAGE AFTER SERIOUS INJURY TO COMMON OR HEPATIC DUCTS.—Mayo, Wm. J.—*Surg., Gynec. and Obst.* 1916, XXII, I.—

The author reviews the anatomical relations of the gallbladder and ducts with the blood supply of the same. He points out the fact that the injuries are most frequent after operative procedure, less common, obstruction due to cicatricial contraction after ulceration by stone. Obstruction may also be caused by a new growth on the stump of the cystic duct. Two cases in the Mayo Clinic were adeno-fibroma of the stump of the cystic duct remaining from a previous cholecystectomy.

The operative procedures are described. (1) Excision or resection of the obstructed portion of the common duct with end-to-end union. The obstruction is usually at the junction of the cystic and common ducts. Dissect the adherent stomach and duodenum free from the hepatic notch until the gastro-hepatic ligament is found. Find the common duct by following the dissection of the hepatic duct along the gastro-hepatic ligament. Dissect out the stricture until the ends of the common and hepatic ducts lie free. Obliterate the posterior space thus left behind the ducts by stay sutures. Unite duct ends posteriorly by through and thorough suture. Split the anterior surface of the common duct one-third of an inch. Introduce "T" tube, one arm into the hepatic duct the other into the duodenum and suture around the tube. Cover with omental or peritoneal tissue. The rubber tube may be removed in three weeks. Suture wound, use drainage of rubber dam.

Strictured area of common duct divulse with dilating forceps, when the stricture is in the pancreatic portion of the duct, open it and dilate with forceps.

Extensive injuries to the great bile duct necessitating union of hepatic duct to duodenum. Approximate the duodenum to the dilated hepatic duct and secure with two row suture.

Union by rubber tube of the common or hepatic duct to the duodenum.

Unite the hepatic duct to an opening in the duodenum by muco-mucous suture. Introduce tube and suture so that some part of the canal will be lined with mucous membrane. Suture over with omentum. The tube extends into the hepatic duct to the primary division and one inch into the duodenum.

Direct union of the common duct to the duodenum. Used when part of the common duct has been removed, operation for cancer, etc. Tie distal end of duct and cover with peritoneum. Unite proximal end to duodenum by method of Coffey. This is only applicable as a primary operation.

J. G. SPACKMAN

A STRANGULATED EPIGASTRIC HERNIA.—Gatewood.—*J. Am. M. Ass.* 1916, LXVI, 85.—The author reports a case of strangulated epigastric hernia, the sac containing omentum and small intestine.

He reviews the different types of epigastric hernia as to location, contents and frequency. The history of the case is as follows:—

A laborer 40 years of age who gave a history of a small epigastric lump, present since childhood; was suddenly seized with a continuous, severe, epigastric pain. This was accompanied with constant nausea and vomiting. On examination a tumor as large as a lemon was found midway between the umbilicus and the xiphoid cartilage.

Upon operation under a local anesthesia of novocain 1:200 and epinephrin chloride 1:100,000, it was found to be a strangulated hernia. When the sac was opened a small amount of dark brown fluid was found. The sac contained upper jejunum and omentum. The peritoneum had lost its luster and the intestine was dark in color, but regained its normal color after the constriction was removed. A small band which did not was inverted with Lembert sutures. The patient made a good recovery. Wound healed by primary union.

J. G. SPACKMAN

A NEW METHOD OF INTESTINAL ANASTOMOSIS.—Mc Whorter, G. L.—*J. Am. M. Ass.*, 1916, LXVI, 86.—The author reviews the different common methods of intestinal anastomosis and gives the advantages and disadvantages of each operation. The technique of the new method is described as follows:

The area to be resected is clamped on either side. Protect the operative field with moist gauze. The mesenteric vessels supplying the area to be resected are ligated. Divide the bowel between the clamps with cautery. Overlap the ends of the intestine to be united about 2 inches, restoring the direction of peristalsis. Unite at mesenteric border with a Dupuytren's suture. Cut away the clamps leaving healthy bowel. The sides of the intestine which approximate are cut away beginning at the end of the lumen and leaving a small edge of the side near the mesentery for approximation of the serosa by an inner suture through all the coats. A similar width is left on the convex side for approximation by invagination sutures. The notched section should have rounded corners. Start a buttonhole suture near the mesenteric side through all the coats and continue on the other side as Connell suture. The Dupuytren's suture previously begun is continued around the first line of sutures. Suture edges of overlapping mesentery.

J. G. SPACKMAN

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY DR. DONALD MACFARLAN
PHILADELPHIA

THE CORRESPONDENCE OF HAHNEMANN. HIS VIEWS UPON THE CHEERFUL METHODS OF LIFE.—“My Dear Mr. X—It is true that I am going to Hamburg, but that need not trouble you. If you do not grudge the few groschen a letter will cost, you can still have my advice when I am there. Merely write my name, and Hamburg beneath it, and your letter so addressed will find me.

For the present I must say that you are on the fair road to health, and the chief sources of your malady cut off. One source still remains, and it is the cause of your last relapse. Man (the delicate human machine) is not constituted for overwork, he cannot overwork his powers or faculties with impunity. If he does so from ambition, love of gain, or other praiseworthy or blameworthy motive, he sets himself in opposition to the Order of Providence, and his body suffers injury or destruction. All the more if his body is already in a weakened condition; what you cannot accomplish in a week you can do in two weeks. If your customers will not wait they cannot fairly expect that you will for their sakes make yourself ill and work yourself to the grave, leaving your wife a widow and your children orphans. It is not only the greater bodily exertion that injures you, it is even more the attendant strain on the mind, and the overwrought mind in its turn affects the body injuriously. If you do not assume an attitude of cool indifference, adopting the principle of living for yourself and only secondly for others, then there is small chance of your recovery. When you are in your grave men will still be clothed, perhaps not as tastefully, but still tolerably well.

If you are a philosopher you may become healthy, you may attain to old age. If anything annoys you give no heed to it; if anything is too much for you have nothing to do with it; if anyone seeks to drive you go slowly and laugh at the fools who wish to make you unhappy. What you can do comfortably that do; what you cannot do don't bother yourself about it.

Our temporal circumstances are not improved by overpressure at work. You must spend proportionately more in your domestic affairs, and so nothing is gained. Economy, limitation of superfluities (of which the hard worker has often very few) place us in a position to live with greater comfort—that is to say, more rationally, more intelligently, more cheerfully, more quietly and more healthily. Thus we shall act more com-

mendably, more wisely, more prudently, than by working in breathless hurry, with our nerves constantly overstrung, to the destruction of the most precious treasure of life, calmly happy spirits and good health.

Be you more prudent, consider yourself first, let everything else be of only secondary importance for you. And should they venture to assert that you are in honor bound to do more than is good for your mental and physical powers, even then do not allow yourself to be driven to do what is contrary to your own welfare. Remain deaf to the bribery of praise, remain cold and pursue your own course slowly and quietly like a wise and sensible man. To enjoy with tranquil mind and body, that is what man is in the world for, and only to do as much work as will procure him the means of enjoyment certainly not to excoriate and wear himself out with work.

The everlasting pushing and striving of blinded mortals in order to gain so and so much, to secure some honor or other, to do a service to this or that great personage—this is generally fatal to our welfare, this is a common cause of young people aging and dying before their time.

The calm, cold-blooded man, who lets things softly glide, attains his object also, lives more tranquilly and healthily, and attains a good old age. And this leisurely man sometimes lights upon a lucky idea, the fruit of serious original thought, which shall give a much more profitable impetus to his temporal affairs than can ever be gained by the overwrought man who can never find time to collect his thoughts.

In order to win the race, quickness is not all that is required. Strive to attain a little indifference, coolness and calmness, then you will be what I wish you to be. Then you will see marvellous things; you will see how healthy you will become by following my advice. Then shall your blood course through your blood vessels calmly and sedately, without effort and without heat. No horrible dreams disturb the sleep of him who lies down to rest without highly strung nerves. The man who is free from care wakes in the morning without anxiety about the multifarious occupations of the day. What does he care? The happiness of life concerns him more than anything else. With fresh vigor he sets about his moderate work, and at his meals nothing, no ebullitions of blood, no cares, no solitude of mind hinders him from relishing what the Beneficent Preserver of Life sets before him. And so one day follows another in quiet succession, until the final day of advanced age brings him to the termination of a well spent life, and he serenely reposes in another world as he has calmly lived in this one.

Is not that more rational, more sensible? Let restless, self-destroying men act as irrationally, as injuriously towards themselves as they please; let them be fools. But be you wiser! Do not let me preach this wisdom of life in vain. I mean well to you.

Farewell, follow my advice, and when all goes well with you remember

DR. S. HAHNEMANN.

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THE VALUE OF THE MATERIA MEDICA.

BY

E. M. HOWARD, M.D., CAMDEN, N. J.

Emeritus Professor of Materia Medica, Hahnemann Medical College, Phila.

(Read before the Tri-County Homœopathic Medical Society, December 14, 1915).

THE trend of modern medicine, is everywhere away from the internal application of drugs in the treatment of the sick. Mechanical measures either by surgery or, the direct mechanical effects of drugs, or the use of the various products of bacteriological study, together with the use of the many modalities of electricity, form the bulk of the recommendations of modern medicine for the treatment of human ills.

Therefore a discussion of the real curative value of the materia medica is a live one, and we are justified in asking the question whether drugs have any value at all, other than for their mechanical uses.

There are two phases of this matter worthy of our consideration at this time.

First: How reliable are the effects credited to drugs in our materia medica?

Second: How far does clinical experience confirm a belief in the efficacy of drugs to cure disease?

We are all more or less sceptical about the great mass of the drug symptomatology of the homœopathic materia medica. Notwithstanding the fact that most of our provings were supervised by able and competent physicians, the fact that they were obtained from human subjects leads us to wonder how much of the affects are real and how much are purely imagin-

ary. And then we want to know how much of the real is due to the action of the drug, and how much expresses only the natural or temporary condition of the prover.

Moreover, we do know that few of the provings were verified by modern instruments and methods. So that we feel more or less uncertain about the amount of dependence we may place on the great bulk of our recorded pathogeneses. We know indeed that in a great work like Allen's *Encyclopoedia* there must be a vast amount of chaff mixed up with the many grains of truth that are there recorded. But yet we know that in spite of all these possible errors, that the homœopathic provings comprise the most complete data that has yet been assembled in this branch of medical science, and are an everlasting monument to the industry of Hahnemann and his painstaking followers.

It is encouraging to note that there are increasingly strong forces looking towards scientific reprovings, to winnow out the chaff and leave the true kernels. After that let us hope there will arise some great master mind, who will be able to cull out the essentials and present us with a clear, true picture of the individuality of each drug, so necessary for memorizing and accurate prescribing.

When we turn to the old school and eclectic works on *materia medica*, we find that we are up against still greater problems, outside of the real toxic drugs whose gross pathology is pretty well understood, the effects attributed to drugs are largely derived from clinical experience. That is they are the result of observations and deductions made during their use in the sick room upon persons suffering with disease. These clinical effects in the presence of diseased conditions are so closely inter-twined with the real physiological effects upon healthy functions, that it is almost impossible to separate them. Very little or no attempt is made by these authors to differentiate between drug effects on healthy physiological processes, and the results of drugs observed when given in the presence of diseased conditions. So that the student searching for *materia medica* truth has a very difficult task.

Outside of the homœopathic school, the bulk of *materia medica* knowledge and therapeutic suggestion, is based upon clinical experience. A certain medicine has been found successful in a certain type of disease, therefore, it is reasoned, it should cure all others of the same type. That is the colossal

error of laity and physicians. That is the basis of the great patent medicine fallacy. The truth of the matter is, that if a drug has cured one person of any type of disease, it becomes very doubtful whether it will cure the next one that is presented. Individual peculiarities are so marked that it is more reasonable to suppose that a different remedy will be required. It is the recognition of the failures so apparent after treatment according to this mode of reasoning, that has led the old school to medical nihilism. If a drug will not cure all cases of a certain type of disease, then there is no dependence to be placed upon drugs, and that is the prevailing attitude today.

The eclectics still cling to a faith in the curative power of drugs, but they are depending so much upon a knowledge obtained from clinical experience, that they almost lose sight of well known physiological actions. I allowed them to fool me a short time ago. I was carried away by their glowing accounts of the wonderful results with their subculoid (hypodermic) preparation of lobelia.

Although I knew that nausea and vomiting was a marked effect in all our provers, their claim, that it worked its wonders without upsetting the stomach misled me, and I was induced to try it in an obstinate case of migraine, which I had failed to relieve by any means at my command. The lady to whom I gave it, had a stomach peculiarly hard to upset by any means, one who indeed did not remember ever having vomited in her life, I gave the lobelia in the dose recommended hyperdermically. As a result the headache was promptly stopped, but the patient vomited almost continuously for twenty-four hours, and it was two days longer before her stomach was really settled. It would be impossible ever to induce this lady to repeat this treatment no matter how great her pain might be. My mistake was in not heeding the certain knowledge I possessed of the physiological effects of lobelia, and instead, basing both my prescription and dosage upon the clinical deductions of others.

No doubt a great deal of valuable aid to practice has been built up from clinical experience, but we must not assume such observations to represent the real physiological action of the drugs, and they can never become a reliable basis for an exact materia medica, upon which only a real science of therapeutics must ultimately be founded. It does seem strange that the

entire medical world does not perceive the necessity of carefully separating drug effects upon the healthy function, from those appearing when applied during diseased conditions. A scientific materia medica, based solely upon the action of drugs on healthy functions must be formed, before we can hope for a real science of therapeutics.

The old school works still further complicate this problem by adding the results of animal experiments, which valuable as they may be as pointers, cannot always be applied to human beings. These animal observations and conclusions drawn therefrom are frequently inter-twined with the results recorded from other sources vitiating to that extent a pure materia medica.

The language used by most authors in describing drug effects is often rather vague, at least to the homœopathist, using such general terms as excitants or depressants of general functions in a way that gives little information as to the real pathology produced, and giving no clue or detail as to the exact kind of excitant or depressant action obtained, so that their value as aids to therapeutic use is very much lessened.

I think no one will deny the desirability of having a perfectly reliable record of the certain effects which drugs are capable of producing upon the healthy body. This seems to me just as vital to the old school as to ours, for no matter on what theory we may use drugs, a certain knowledge of their possible effects, must be the basis upon which we must prescribe them.

The homœopathic materia medica is also not blameless in the misuse of clinical symptoms. Believing as we do that *like cures like*, it has been assumed that when certain conditions or symptoms disappeared after a drug had been given, that such was positive proof that these symptoms belonged to the real physiological action of the drug. This is a dangerous assumption, and although such results are worthy of being noted they should find no place in a record of pure drug effects.

I want to see a materia medica which shall give nothing but pure drug effect upon healthy human beings, and from which every clinical deduction or result shall have been excluded. But I want that record to include not only the subjective symptoms so well detailed by our school but also to include the objective certainties cited so much more carefully

in the old school and eclectic works on *materia medica*. In other words, I want to see a pure *materia medica*, which shall record all the certainties of drug effects, from the gross pathological changes of the large doses, to the finest emotional derangements of the attenuated doses. But, I want these facts absolutely true and undeniable.

To winnow the chaff and perfect our records of drug action, is the duty of this generation. It is hopeful that so many are being driven to this same conclusion. It is the peculiar task of the homœopathic school. But it can never be done in a desultory way. It cannot be done, as it ought to be done, in a medical college or by medical students. It cannot be done by men in active practice. It cannot be done without large sums of money. For this work large endowments are a necessity. I believe this to be the one thing the homœopathic profession must work for, to save our school from retrogression. I believe this is far more important than the duplication of hospitals. Enough hospitals have now been founded to establish the truths of homœopathy. Now let us appeal to our wealthy patrons and friends, to establish funds for drug experimentation. Such work must be in the hands of broad minded men, and the entire medical profession ought to be interested in making certain and positive the exact facts about drugs.

Second. How far does clinical experience confirm a belief in the efficacy of drugs to cure disease?

I exclude from this discussion such drugs as are used by all schools to alleviate conditions mechanically. The use of drugs as purgatives or emetics, etc., is purely in the field of mechanics and is strictly comparable with surgery, only using drugs instead of steel instruments as the tools.

The old school has undoubtedly found very little confirmation of the curative power of drugs, and are even beginning to question a great deal of their mechanical use, believing the after effects often worse than the condition for which they are prescribed.

The eclectics still retain strong faith in cures by drugs, and have rolled up a large amount of undoubted testimony in their favor.

The homœopathic school for a hundred years has been accumulating an almost overwhelming amount of evidence of the curative power of drugs, when used in proper doses. Question some of this evidence as you may there will still remain

such a mass of proof that it cannot be reasoned away by modern science.

In recent years a good many homœopathic physicians seem to have lost confidence in the power of drugs to do what the older men have taught us to expect. There are I think two reasons for this attitude. First, the exact science of modern times challenges belief in anything that cannot be demonstrated by the microscope and chemical action. And the wonderful revelations of bacteriology have blinded their eyes to the value of the older methods.

But Second, I believe this scepticism is born of the failure to obtain universal results. Our failures engender distrust, notwithstanding the fact that we know that a certain amount of failures must inevitably follow all human endeavor. So true is this that we question men whose claims are too rosy. Only the other day I heard physicians criticising the new auto-therapy procedures, because so many good results were reported and no failures. We have no right to suppose that all our prescriptions will be successes. Failures are sure to be made, because we are imperfect men working with imperfect tools, the records of drugs are imperfect as has been shown before, and worse than that few of us have at our command even such knowledge as does exist. Instead of losing faith in drug action, we ought rather to blame ourselves and strive for better knowledge.

Again our honest scepticism is fostered by the fact that we treat a large number of cases, whose recovery cannot be certainly attributed to the drug given, because other things are also done, and if the patient recovers it depends upon our mental attitude whether we attribute the cure to the drug or something else.

Sometimes we get twisted in our acceptance of others' experience without any good reason. I have never had very strong faith in the value of the classical indications for *carbo veg.* in collapse conditions. But last summer I had a child of twelve years given up to die by all my associates, the ablest of consultants. She had besides other things a gangrenous abscess of the right lung. After my advisers had left, telling me to do nothing as her death was a matter of only a few hours, I became impressed with the similarity of her condition to the picture of *carbo veg.*, which I had so often detailed to my students, but never half believed in. Pinched face,

cold sweat of face, marked cyanosis of lips, of finger tips, cold extremities, rapid heart (180), thready, at times imperceptible pulse, gasping for breath, constant desire to be fanned, etc. So without any hope, and in sheer desperation I began giving *carbo veg* in the 30th which was all that was available. In a short time I fancied there was a slight improvement, in an hour I was sure of it. The child went on to an ultimate complete recovery. Now it would be hard to convince me that the drug had nothing to do with it.

During my thirty-seven years of medical practice, curative or marked relief has occurred so often and so positively, that I cannot doubt the real value of drugs. Patients return so often, asking for medicines obtained many years ago, which gave marked relief, and original results are often duplicated. I cannot believe that I have been deceived.

But the proofs of drug cures do not rest with the results in any one case, or with the personal experience of any one man. The sum total of the successes of one man, supported by the sum total of one hundred years of homœopathic experience, does in the aggregate form convincing evidence, which cannot be explained away. No, there is no doubt of the great value of the grains of wheat mixed up in the chaff of our drug symptomatology, and there does exist plenty of evidence proving the curative power of drugs, when rightly and intelligently selected and applied.

But I do not believe in any system of mere symptom matching. The subjective symptoms do not represent the full significance of the Hahnemannian system. We depend upon the characteristic subjective symptoms too much. They only serve to differentiate one drug from others which produce a similar pathological picture. The true *similimum* must be a drug not only capable of producing similar subjective symptoms, but also the same pathology. Supposing there are a dozen drugs capable of producing a similar pathology to that of the patient, we may separate the right one from this number by means of the peculiar or strange symptoms common to the drug and the patient. But I cannot believe that such symptoms can lead to a cure, if there is no possible action of the drug in the same pathological direction. Therefore my plea for a revised *materia medica* that shall record drug pathology as a basis for its subjective superstructure.

THE SCOPE AND LIMITATIONS OF THE HOMŒOPATHIC REMEDY IN THE TREATMENT OF MYOCARDIAL FAILURE.

BY

WM. H. YEAGER, M.D., PHILADELPHIA.

(Read before the Homœopathic Medical Society of the County of Philadelphia).

OUR subject tonight, the Treatment of Myocardial Failure, is a very large one. In many cases it begins early in the life of the child suffering with acute inflammatory rheumatism and lasts until late in the life of the old man or woman when senile changes bring about a complete rupture of compensation. In order to be brief, I shall divide the subject into three stages—the stage of complete compensation—the stage of beginning rupture—and the stage of badly ruptured compensation.

During the period of complete compensation it should be our aim to have our patients maintain *perfect nutrition*, avoiding over-feeding with its fatty changes and consequent weak muscles, on the one hand, and under-feeding with its indigestion, constipation, etc., on the other hand. The same happy medium should be sought after in the matter of *exercise* and *rest*, never straining muscle endurance too far or allowing over-rest to lead to rust.

The habit some physicians have of giving their patients, upon the slightest pretext, some cardiac “tonic” during the stage of complete compensation is very pernicious and only capable of doing serious harm to the myocardium. The occasional dose of whiskey, or a little strychnia or digitalis now and then, is not necessary.

When the patient has an acute illness we should promptly put him to bed and keep him at rest a little longer than the normal man or woman, and prescribe homœopathically according to the totality of his symptoms. So long as compensation is complete only homœopathic medicine should be used, so far as the heart is concerned.

Our attention is drawn to the second class of cases, when decompensation is threatened or actually started, by cardiac arrhythmia or cardiac rapidity, or by a beginning shortness of breath upon any unusual exertion. These symptoms will be greatly lessened or will entirely disappear after the patient has rested for some time. If the patient is carefully questioned it

will be found that he is made conscious of his heart by the presence of some subjective symptoms, and these symptoms carefully studied will lead to the homœopathic remedy which will be all-sufficient, in a vast majority of instances, to enable the patient to regain his circulatory equilibrium, provided we lessen all heart strains and improve heart nutrition.

I believe that cardiac stimulation is, at least, unnecessary in this stage of myocardial failure, and I am inclined to suspect that we hasten the appearance of a badly ruptured compensation by the too early use of these drugs.

A lady, aged thirty-eight (with a mitral systolic murmur which appeared years ago during an attack of chorea, and who is also a victim of inherited syphilis), consulted me on account of palpitation of the heart which she had had for three days.

Her pulse was 108 and weak; her heart was tumultuous and the character of its action could be judged by the jarring of the chest wall. She suffered with dyspnea, and complained of pain in her left shoulder and arm especially during the day; although when at rest at night she said the palpitation of the heart kept her awake. The area of cardiac dullness was not apparently enlarged.

I requested her to have her bowels moved, take a light diet, rest in bed for a day or two, and I gave her *Spigelia* 3^x. She took the medicine but neglected to take the advice. The following day when I stopped at her home to make my professional call I found her sweeping the porch. She assured me that, after taking a few doses of the medicine, she felt all right; and she has continued all right for over a month.

Another lady, aged fifty, was treated for months by a homœopathic physician for a dry, choking cough accompanied by shortness of breath whenever she exerted herself. She gave a history of having suffered with "heart trouble" when a child. Sitting in a chair, her pulse was 90, her temperature sub-normal most of the time, and respirations 24. The lungs, on careful examination, were found to be normal, but the heart showed an enlarged area of dullness and feeble first sound at the apex; but I could detect no murmurs. The pulse was irregular in force but not in rhythm. The cough worried the lady because she suspected that she had contracted tuberculosis. I gave her *Naja* 30th—and almost immediately her condition started to improve. She took the rest treatment

with hyper-nutrition and baths, in addition to her medicine, and today is very well and has a well-defined mitral murmur.

A man, aged sixty, presented an interesting condition. He was a tall, thin, dark-complected fellow, very bony and frail looking. He had a chronic cough and a nervo-bilious temperament. His arteries were hard and his systolic blood pressure 200. His heart was hypertrophied: his urine showed a trace of albumen. He has been a tremendous eater and a user of alcohol, but his food seems to make him thin rather than fat, and undoubtedly his gormandizing has hardened his arteries, kidneys, liver, etc.

Now, lately, this man became very anxious about his health. He said his health was breaking and his days were numbered. He noticed his legs were a little swollen at night and he thought he knew what that meant. His chest felt strange. He was conscious of his heart action, especially when he awakened during the night, and all this made him uneasy and afraid.

I have modified all of this man's activities; I have given him written instructions as to just how much work he should do; how much he should eat and drink. I have overcome his intestinal stasis with laxatives, and I have prescribed Arsenicum Jod. 3^x (two tablets every three hours); and do you know, he is getting cheerful again; he looks quite bright and happy. The edema of his ankles has disappeared. His breathing, cough, and digestion are all better, and his blood pressure is 170 systolic. I think after a while he will need some chloride of gold—but that is anticipating.

When heart strain is in excess of heart rest and nutrition, our cardiac patient sooner or later will present the signs of a badly ruptured compensation. The tachycardia, arrhythmia, and dyspnea, and possibly edema of the ankles will not entirely disappear after a night's rest, and we then believe the patient has an *established capillary-venous-stasis*.

I think it is necessary for us to have a very clear mental picture of the branching arteries making a diverging pathway for the flow of blood; and then next, the thousands of capillary vessels and these emptying into the veins forming a converging pathway, with the heart standing between these two great highways of blood current.

Blood stasis begins naturally at the point most remote from the heart, where its force is least felt, and where the vessels are smallest, *i. e.*, the capillaries. A stasis in the small veins

receiving the blood from these capillaries must necessarily follow. The vis a tergo is reduced to a minimum in these small veins, and the stagnant blood constitutes an ever-increasing impediment to the work of the heart; consequently, the weaker the heart becomes, the heavier the load of stagnant blood the heart must struggle to move. The effect of this *visceral-venous-stasis* is seen in the constant cardiac dyspnea, the enlarged liver, the albumenuria, the difficult digestion, the insomnia, the edema of the extremities, etc.

Under these conditions, it has been my experience that the homœopathic medicine can do no permanent good. The patient may feel better for a day or two but the effect is soon lost. The dynamic remedy can only arouse the recuperative powers that are latent in the patient; it cannot directly stimulate the cardiac ganglia and heart muscle to increased vigor and, unless this is done, the load of stagnant blood must constantly become heavier and the heart muscle constantly become weaker until it refuses any longer to struggle against such terrible odds. It seems to me that the sooner we remove the blood stasis the better, and this can only be done with any promise of success, by wise and careful cardiac stimulation.

THE CLINICAL IMPORTANCE OF THE EXAMINATION OF THE STOOL IN INFANCY.

BY

C. S. RAUE, M.D.

Professor of Pediatrics, Hahnemann Medical College, Philadelphia.

THE newborn infant discharges a dark, greenish, tarry substance of semi-solid consistency from the bowels which is called *meconium*. Its composition is biliary and intestinal secretion from which most of the moisture has been absorbed and which has accumulated in the gut during fetal life. There is also present epithelium, hairs and vernix caseosa showing that the fetus swallows amniotic fluid. On the third day the discharges from the bowel become thinner and contain more mucus and assume a brownish-green color. This is identical in appearance and composition with the *starvation stool* observed when a child is fed for several days on a diet containing no solid constituents such as barley-water, broth or tea.

The diet is largely responsible for the appearance and character of the stool. The condition of the digestive organs also influences the character of the stool and we must therefore differentiate between physiological and pathological deviations from the average normal.

A young infant may have from three to four stools daily while an older one will usually have from one to two in 24 hours. The frequency of the stool is usually greater in breast-fed than in bottle-fed infants and the consistency may be decidedly thinner without there being the slightest indication of a nutritional disturbance. A thin stool containing some mucus may simply indicate that the milk is poor in fat. The consistency of the stool is therefore largely dependent upon the amount of fat present in the food. When the infant is fed upon a food containing fairly large amounts of protein and carbohydrate but a low percentage of fat the stools are usually soft and salve-like. When the food is rich in fat and low in protein the stool may be soft, or semi-liquid and contain curds. In cases of over-feeding with both casein and cream the stools become large and formed, of a putty-like consistency and grayish color due to the formation of soaps in the intestinal tract. The soaps produced by the union of fatty acids with the calcium salts of the intestinal secretion are dry and insoluble and therefore produce troublesome constipation.

The color of the breast-fed stool is an orange-yellow due to the presence of unchanged bilirubin. In infants fed on cow's milk the stools are of a paler shade. Sometimes they become almost colorless, as a result of the reduction of bilirubin into hydrobilirubin, or urobilinogen through bacterial action. This is most frequently seen in fat indigestion with constipated stools. When high protein and low fat formulae are fed the stools may become a brownish-yellow color. Barley and maltose preparations give the stool a brownish color. In dyspeptic conditions resulting from fermentation of the sugar of milk in the food the stools are usually green in color.

The reaction of the stool may be determined with strips of red and blue litmus paper moistened with water. It is acid in the breast-fed infant as the result of the fermentative changes taking place in the intestinal canal. This is favored by the high sugar (lactose) and low protein content of the mother's milk. In bottle-fed infants the stools are alkaline as a result of the putrefactive changes in the intestine. The reaction may

be made acid by feeding high fat and low protein formulae or by increasing the percentage of sugar in the food. There is however always danger of the fermentative process exceeding the normal bounds and it is well to reduce either fat or sugar as the case may be, so soon as the stool becomes acid in reaction. A severe fermental diarrhoea may result on the one hand from the excessive fermentation of the sugar in the food or on the other hand, an acidosis from the prolonged excessive fat feeding.

In the lower portion of the small intestine and in the cæcum of the breast-fed infant the bacillus lactis aerogenes and the bacillus bifidus predominate; the latter is most prevalent in the colon. Both are saccharolytic, converting lactose into lactic acid. The bacillus bifidus is Gram positive in its behavior to stains.

In the artificially fed infant the colon group of bacteria predominate. They are proteolytic although in a medium consisting chiefly of carbohydrate they may set up fermentative changes. The colon bacillus is Gram negative.

Aside from the higher protein percentage of cow's milk the putrefactive changes which take place in the albuminous intestinal secretion are also responsible for the bacteriological difference between the intestinal tract of breast-fed and artificially-fed infants. The protein rich artificial food stimulates intestinal secretion to a greater degree than does woman's milk. The alkalinity of the secretion favors putrefaction as does also the relatively higher calcium content of cow's milk. Several factors therefore are operative in bringing about these proteolytic changes.

ABNORMAL CONSTITUENTS OF THE STOOL.

Curds are one of the most important of the abnormal constituents of the stool and are usually associated with an excess of moisture and mucus, so that the stool becomes too soft or liquid. Such a loose stool is typical of indigestion although in breast-fed infants several such stools may be passed daily and still the babe thrive.

The majority of curds indicate fat indigestion. They are composed of neutral fats and calcium soap, resulting from the combination of the fatty acids of the foods with the mineral bases present in the intestinal secretion. Fat curds may be soft and oily, imparting an oily stain to a piece of unglazed paper

when crushed on the same, if they contain an appreciable amount of neutral fat. When they are composed mainly of calcium soap they are dryer and more brittle. They always contain some adventitious protein matter which may give them a tough consistency. The large, dry, hard fecal masses encountered in constipation from overfeeding are a good example of calcium soap stools.

Casein, or protein curds are far less common than fat curds. They only occur when unboiled cow's milk is used and so can readily be corrected by boiling the milk. Casein curds are tougher than fat curds and are hardened by the action of formaldehyde. The curd should be placed on a piece of filter paper and some formaldehyde poured on it. If it is essentially a protein curd its consistency will be promptly changed by the reagent.

Chemical examination of curds. A protein curd will respond to the usual tests for protein such as the Xanthoproteic reaction and Piotrowski's reaction. It should be remembered however that a considerable proportion of the makeup of curds and other elements in the stool must be attributed to the albuminous intestinal secretion and to bacteria and for this reason all curds whether primarily resulting from undigested or unassimilated fat or casein will be contaminated with extraneous protein.

A washed portion of the curd is placed in a test tube, dilute nitric acid is added and the contents of the tube boiled. All proteins are dissolved by the action of such a hot acid solution. The solution assumes a yellow color. When the solution has cooled a strong alkali such as sodium hydroxid solution is added, and an orange-yellow color reaction takes place. This is the Xanthoproteic reaction. Piotrowski's reaction is obtained by adding to the above solution a drop of copper sulphate and then an excess of sodium hydroxid. The reaction is a violet color, becoming darker on boiling.

Fat curds are not influenced by formaldehyde but they are melted by heat and if acetic acid be added, to break down the soaps and liberate the fatty acids the latter will crystalize out on cooling. The various fat elements also present certain staining peculiarities which makes their identification possible. This test is best carried out under the low power of the microscope. A small fragment of stool is placed on a glass slide, mixed with a drop of water and then a drop of dilute fuchsin

stain is added and a cover glass applied. The soap particles present take on a pale rose while the fatty acids take a deep red stain.

Neutral fats do not take the fuchsin stain but can be demonstrated by treating a specimen prepared as above with alcoholic Sudan III. With this stain the neutral fats show as orange colored droplets. The fatty acids take on a deep red.

If a drop of glacial acetic be allowed to run under the edge of the cover glass and the specimen heated the fatty acids are liberated and on cooling will show under the microscope as needle-like crystals.

This test is of value to establish the identity of a given curd and it also gives an approximate idea of the amount of fat in the stool. In normal, well digested stools only traces of soap and fatty acids will be found. The younger the infant, however, the less complete the assimilation of fat even under normal conditions. The presence of neutral fats indicates duodenal indigestion from deficient pancreatic or biliary secretion. Excess of fatty acids may signify secondary fat indigestion from excessive peristalsis or sugar dyspepsia or it may be an early sign of fat overfeeding. Excess of soaps in the stool indicates chronic fat indigestion usually as a result of overfeeding.

Bile is present normally in the breast-fed stool in the form of bilirubin which gives the stool its bright yellow color. Under artificial feeding the biliary constituents are often changed. In constipated stools bacterial reduction takes place and most of the bilirubin has been changed to urobilinogen so that the stools are much lighter in color. In fermentative disturbances the bilirubin has been oxidized to biliverdin giving the stool a green color. When exposed to the air a loose stool which was yellow when passed oxidizes to a green color.

In order to demonstrate the presence or absence of biliary salts in a white or gray stool the following test may be applied:

A small portion of the stool is triturated in a mortar with a little water until it has become liquified. Ten or fifteen drops of a saturated aqueous solution of bichloride of mercury are added, mixed and the specimen allowed to stand for twelve hours or longer. Urobilin gives a red reaction. If bilirubin is also present specks of green will also be seen.

Bacteriologic examination. It has been already stated that the breast-fed stool is Gram positive while the stool of the

bottle baby is chiefly Gram negative. In the latter the colon bacillus predominates and this organism may act either as a fermentative or proteolytic agent. Kendall has shown that when a sufficient amount of carbohydrate is added to the diet putrefaction is replaced by fermentation. Kendall has also shown that the association (sympiosis) of the bacillus subtilis with the colon bacillus may lead to pronounced proteolytic changes with the formation of gas and this may take place in the small intestine.

Among the pathogenic organisms demonstrable in the intestinal tract the most important are the dysentery bacilli of which there are several types. These organisms may be at times demonstrated in the stools of healthy infants, but when they are found in a case of ileocolitis and give the agglutination reaction with the blood of the patient they may be properly considered as the infective agent. Unfortunately the cultivation and identification of the dysentery group requires special laboratory facilities and technical skill and therefore cannot be carried out in ordinary practice.

The gas bacillus is looked upon by Kendall as the etiological factor in certain cases of infantile diarrhoea and the interesting point in connection with this type of infection is that he considers the lactic acid bacillus, given either in culture or in the form of buttermilk, as therapeutically specific. Its identification is simple and therefore becomes clinically practical. A small portion of the suspected stool is thoroughly mixed with several cubic centimetres of milk in a test tube, the tube is placed in a water-bath of cold water, the water slowly brought to the boiling point and allowed to boil for three minutes. All bacteria are killed by this heat excepting the spores of the gas bacillus. After incubating the tube at body temperature for twenty-four hours the gas bacillus, if present, liquifies the major portion of the casein and the residue assumes a pinkish color and contains small gas bubbles. The odor of butyric acid is also evolved. The bacillus is a thick short rod with rounded ends and is Gram positive.

AN ADDRESS ON THE HISTORY OF SYPHILIS.

BY

ALEXANDER H. UHLE, M.D., PHILADELPHIA.

THERE have been two main theories as to the origin of syphilis, one that it is as old as the history of man, and the other that it was not known until the sixteenth century, when it made its first appearance in Europe. Both theories have been advocated, and much has been written pro and con. Buret, a French writer, is one of the supporters of the "old as man" assumption, and in his efforts to establish it a fact, examined over 7,000 books and manuscripts of ancient literature of all nations. Definite evidence is hard to find, and the only absolute proof would be to find a bone, whose age we knew, which bore syphilitic osteitis. None such has yet been found, although a great number of skeletons have been examined with this end in view. In the final analysis it is either impossible to establish the age of the bone, or to positively identify it as being syphilitic. Klebs examined bones, bearing suspected syphilitic traces found in Kentucky and Tennessee, but the age of these bones is a matter of conjecture, and not fact. The same is true of bones unearthed in Peru. In France bones have been found, of which we do know the approximate age, but upon which we do not have the positive marks of syphilis. Thus, actual first hand evidence to bear out this theory that syphilis is as old as the history of the world seems to be lacking, because, furthermore it is not described in the early works as it is today, the symptoms complex being only of recent discovery, the word syphilis not having been used until the year 1530.

We have evidence to show that the ancients knew that diseases came from sexual relations, but because of their belief in the wrath of God as the cause of all disease, they studied the symptoms only, and not the disease itself. In the study of the literature of different nations, we find that the Chinese, for example, knew and studied sex diseases, but we can find nothing definite as to what we today recognize as syphilis. In the oldest Chinese literature we possess, that of the dynasty of Hoang Tu, 2600 B. C., translated by Captain Dalby, there appears to be mention made of syphilis. No doubt prostitu-

tion ran riot in China at that time, and no doubt sex diseases existed, but evidence we now have proves that Captain Dalby's knowledge of syphilis influenced his translation. The later work of Okamura, who not only investigated thoroughly this work, but who delved into all of the ancient literature of this race, found nothing to support Dalby's assumption, nor could he find any definite traces of the disease itself.

The same thing holds true of Japan; evidences of syphilis were supposed to have been found, but the investigation of Japanese students proves, that according to their record, syphilis in Japan is recent, and not ancient.

The papyri of Egypt shows the prevalence in that ancient country of diseases of the skin, joints, eyes, appendages, and so forth, but there is nothing we can call syphilis.

Because of the superstitions existing in old Assyria and Babylonia, where the people believed that all diseases were consequences of the wrath of the gods, their literature throws no light on the subject.

The work which probably shows us most clearly conditions as they existed among the ancient peoples is the Bible. In Proverbs 5:5 mention is made of the fact that disease can be transmitted by a harlot, although there is nothing in this description which would disclose the prevalence of syphilis. Before the time of Moses the Hebrews described the difference between gonorrhœa and leucorrhœa, and while we know that venereal diseases did exist among this people at that time, there is nothing which shows positively that these diseases included syphilis. In Leviticus 13: we find a description of a white skin ulcer which is similar to that developed in syphilis, but this forms no reason to believe that it was the result of that disease, for the same form of ulcer as that described could have come from a burn, or some other like cause. In the Psalms of David is given one of the best arguments for the contention of syphilis among these old Hebrews, where we find that David had symptoms which correspond to those of the disease as we know it today, such as putrid ulcers, diseased bones, dimness of the eyes, and so forth. Buret considers that the account of Abraham and Sarah, given in Genesis 20:20, shows that Sarah had syphilis. There is no evidence to support this contention.

The Greek religion had a remarkable influence on this subject, and while we find evidence of gonorrhœa, syphilis seems

to be among the missing. The ceremony involved in the worship of Priapus brought about wide spread disease, and while we can find the trace of gonorrhœa, there is nothing that supports the "old as man" theory for syphilis. Hippocrates from whose writings we should be able to get reliable information, does not treat the subject, probably because at that time venereal diseases were beneath the dignity of physicians' attention, and were handled, as they are today to a large extent, by quacks.

Among the Romans lesions were called "figs"—why we do not know. Pliny spoke of an ulcer arising from kissing, known as the "ulcer of Egypt."

From this time on up to 1500 A. D. we find practically no information on the subject. In the 6th Century the diopter was used for the first time, and in 1200 A. D. for the first time the word "infected" was used—"The penis is infected, and sometimes the whole body." Whether this was gonorrhœa or chancroid we do not know. Valescus in 1400 says "Ulcers and pustules may occur on the penis, due to sexual intercourse," and use the word "contagion" for the first time. Widman, in 1500 A. D. claimed that a French disease, which answers the description of syphilis as we know it, was known in 1457 A. D. This date is not authentic, however, for no one of the nations of Europe wanted the blame for the origin of the new venereal disease which did appear a little later. This disinclination to claim parenthood led to a lot of "mud-slinging," which, of course, must all be sifted, in order to get truthful evidence which does not mislead us. Later study centers the inception of this new disease, variously called "French," "Italian," "Spanish," in short, the "other fellow's," to one definite period, from 1493 to 1500. At the time Charles the Eighth took it upon himself to visit Italy at the head of an army, syphilis made its undoubted entrance. During the siege of Naples the disease became such a scourge that physicians were for the first time forced to treat it, and from their data we can identify it as the real syphilis. It spread rapidly over Europe and in a few years became so common that scientists took up its study. The symptoms of the disease were studied and described, and there is no doubt of its being the present day syphilis.

Now comes the all-important question of deciding where the disease originated. In 1518 Schmauss was convinced that

America must be the place, and indeed all syphilologists today agree that syphilis did come from America, and we have proof that the Indians did know the disease as it exists today. Columbus also, after his third voyage, mentioned it as existing among them.

In the year 1530 the word "syphilis" was first employed by Fracastor. Syphilis was the name of a shepherd, who was smitten with the symptoms we now recognize as syphilis. Later on the disease was called the "Great Pox," in distinction to small pox.

Mercury and sweating were first used as a curative agent, the mercury being smeared on in the form of an ointment and the patient then put in an oven-like contrivance in order to sweat the disease out. Shortly after this Ulrich von Hutton was the first man to recognize that alcohol and syphilis do not mix. Peter Matthiöle was the first man to prescribe mercury in the form of pills, and to Francis the First was given the honor of inaugurating this method of treatment. Roudelet in 1560 was the first to call attention to pains in the chest, resulting from this disease, and Horst saw before anyone that it could be transmitted by examination of a patient. John Hunter believed that gonorrhœa and syphilis were similar disease, and to support his contention inoculated himself. It remained for Benjamin Bell in 1793 to differentiate these two diseases for the first time. Between the years 1831 and 1837 Ricord made some 2,500 inoculations, and differentiated chancre and chancroid. In 1903 it was first shown that the lesion could be transferred to the higher apes. Because of its excellence as a culture medium, all animal experimentation from this time on has been carried out on the testicle of the rabbit.

Schaudin was the man to whom belongs the honor of demonstrating the existence of the spirochete, and Wassermann shortly after this proved the value of his complement fixation test. Finally, Ehrlich, discovered salvarsan, now extensively used in the treatment of this disease and proven to be of the greatest value.

THE SEVEN WONDERS OF THE HUMAN BODY.

BY

H. L. NORTHROP, M.D.

(Address delivered before the Hahnemannian Institute.)

A PROVERB of both pagan and Christian nations alike is "know thyself" and always there has been a yearning in the heart of man to gain more knowledge of himself. The perfection of the human body is marvelous, yet it is used and abused in a most unreasonable manner. It demands proper fuel, and the more intricate the mechanism, the more care it demands. The great harmony of action of the organs of the body and the increasing activity of the heart and lungs is to be wondered at. Hamlet in his soliloquy and many quotations from the Bible indicate man to be the "apex of creation, like unto God, the beauty of the world, the paragon of perfection."

The first wonder is the bony skeleton, to which there has always been attached so much superstition. The skeleton is really a thing of beauty, when studied—not so much the "family skeleton," which often is horrible. Volumes have been written by poets on this subject, but perhaps the best is 'Lines to the Skeleton,' which I term the Golden Rule set to rhyme. It was found at the foot of a perfect human skeleton in the Royal Museum of England. A reward was offered for the author, but no one ever appeared to claim it. The bones are stable and durable, yet pliable and elastic. There are no straight lines and the speed of the fox-trot or the grace of the minuet is thereby aided. "We are Seven" well expresses the number of cervical vertebrae, for throughout the vertebrae kingdom this holds true, with minor exceptions. Whether it be the long necks of the giraffe and the ostrich or the short ones of the mouse and the bulldog. 'We are Seven.'

The second of the seven wonders is the human face, the window of the soul. All people have the same kind and number of features, yet how wonderful that there are no two faces just alike, no more than there are two spears of grass nor two grains of sand alike. The face expresses good and ill, just as the character differs in different persons. Some always have a low barometer, a cloudy sky, a constant equinox, while others forever travel in sunshine, under a clear sky, and are lark-like

in both song and flight. "Handsome is that handsome does" and character endures. I would not give a picayune for a pretty face, but give me the good-looking man or woman that depicts good health, good habits, and good morals in a face full of character.

If the face is the window of the soul, then surely we may call the eye the window of the brain. The eye was the third wonder of the human body and was described in most vivid terms by Dr. Northrop.

The voice is the fourth wonder, and what wonderful qualities it possesses—what power, what gentleness, what music! ! We love it for what it makes us forget and what it makes us remember. There are only two strings to this music box, controlled by a few very tiny muscles, yet these give the marvelous range of a Caruso or a Jennie Lind. There are also the accessories to this music box, namely the upper respiratory tract, which gives the sounding board, while the air sinuses cause the sonorous tones of the voice.

The fifth wonder is the human hand, with its great sense of touch and wonderful connection with the brain. It is the organ which performs more miracles every day than any other. *Mirabile dictu! !*

The heart beats from a time before birth until death. Its harmony of action and function is wonderful to behold. Its activity is automatic and untiring, taking its rest between beats for a very small fraction of a second. In certain very exceptional cases the heart is under the control of the will. For example, Col. Townsend of England was able to stop his heart's action for hours at a time.

The final wonder is the human nervous system. This is the crown and master of all, king of kings and lord of lords. It is the monarch of all it surveys. It says "Go thou!" to the foot, for example, and it goes. Just think of the lightning-like rapidity of the reflex action when one touches a hot stove. It is accomplished in a twinkling of an eye, in a far shorter time than my verbosity would indicate.

I look upon these wonders of the human body with the greatest deference, as though I were on holy ground. These are the features distinguishing us from the brute, and I stand spellbound with admiration, reverence and respect, and utter with the psalmist of old: "Thou hast made him a little lower than the angels." Surely this is the "temple of the Holy Ghost." My desire is *Mens sana in corpore sano*.

ACIDOSIS AND THE SCHMITZ THEORY OF DIABETIC COMA.

BY

CLIFFORD MITCHELL, M.D., CHICAGO.

IN these days there is much talk about acidosis. So far as I am able to discover clinicians assume that when acetone and diacetic acid are found in the urine, the patient is suffering from acidosis.

But is this acidosis so called, a cause, concomitant, or result of the pathological conditions in which we find acetone, diacetic acid, etc., in the urine?

Allow me to direct attention to the following statements from among a great many which any one can find who reads:

1. The blood is always alkaline and even before death from diabetic coma I have found it to have decided alkaline reaction (Williamson).

2. Acetone and diacetic acid can be taken internally in large doses by healthy persons without symptoms of importance (Frerichs and Dreschfeld).

3. Subcutaneous injection of 50 minims of acetone produces no bad effect (Linderman).

4. Beta-oxebutyric acid and acidosis in general are merely the result of the action of the diabetic toxine (Klemperer and Von Noorden).

5. The amount of acetone and other ketones in the urine is no direct or unfailing indication of the intensity of the acidosis (Stern).

6. At the present time (1915) it is not even known whether these (acetone bodies) and allied substances are responsible for the symptoms seen or are mere indices and concomitants of the actual causes (Ludlum).

It would appear, therefore, that clinically we may perhaps be too easily satisfied with the term acidosis as indicating the cause of diseased conditions encountered. Acidosis may account, it is true, for brilliant therapeutic success, as for example, in the pernicious vomiting of pregnancy, controlled in some cases by sodium bicarbonate as correctly shown by Blodgett, but on the other hand failure to relieve diabetic coma by prodigious doses of alkalies is so well known as to require no comment.

Hence in considering the toxic agent in diabetic coma we

must get away from the acetones and put our mind to work upon other substances.

Two clinical facts assume importance in the study of the diabetic toxine. First, the diabetic patient eats heartily and takes as a rule much protein; second: he suffers from constipation. As a result of these two facts it is fair to assume that the proteins remain longer in the intestine and in greater amount than in any other diseased condition with which we are familiar. Accordingly Schmitz in 1890, or thereabouts, assumed that the diabetic toxine was a product of auto-intoxication of intestinal origin.

I have recently made a discovery which I think will confirm the theory of Schmitz. I have found in the urine of a woman dying from diabetes a relatively large amount of a substance which requires a large amount of normal urine to give the same reaction obtained from a very small amount of the diabetic urine.

The substance does not appear to be one of the acetones but has chemical properties which suggest an entirely different constitution.

Diabetics with acidosis, so-called, show evidences of the presence of this newly discovered substance in greater amount than diabetics without acidosis or than healthy individuals. A solution has been found which enables me to titrate the substance to a drop and to obtain, therefore, figures which should clinically represent the degree of "acidosis" or (better) of the toxemia.

Inasmuch as the determination of the CO_2 tension of the alveolar air is at present our only method of determination of the degree of acidosis, unless the ammonia figure shows it, a ready clinical method by the urine is much to be desired. I hope, before long to have a sufficient number of cases to prove the merits of my discovery beyond all controversy.

In connection with this subject it is interesting to record that I have found the substance in increased percentage in the urine of one or two children troubled with keratitis. In fact the discovery opens a field for research into intestinal toxemias which promises much more satisfactory results than the study of indicanuria.

The substance is in no way concomitant with indol, for in urines giving brilliant indican reactions it is not increased while on the other hand I have found high percentages of it in urines showing only normal indican reactions.

CORRECTION OF THE DEPRESSION OF THE NASAL BONES.

BY

W. N. HAMMOND, M.D.

Associate Professor of Surgery, Hahnemann Medical College.

SHORTLY after reading in the *Journal of Surgery, Gynecology and Obstetrics* of E. H. Beckman's experience with the transplantation of cartilage for the correction of this deform-



FIG. 1.—BEFORE OPERATION.

ity, I had an opportunity to try the operation upon an appropriate case, with very good results. The patient, a man thirty-two years of age, was infected with lues eleven years ago. The septum of the nose was affected and destroyed and a marked

depression of the nasal bones followed. There were no active signs of the disease at the time of operation and no break in the mucus membrane of the nose. A wax model of the size and shape of the defect was made, an oblique incision was then made over the seventh costal cartilage near its edge and the cartilage bared by the periosteal elevator, and with the bone



FIG. 2.—AFTER OPERATION.

biting forceps, a piece of cartilage was separated somewhat larger than was needed. The edge of the costal cartilage is convex at this point and is ideally shaped for the purpose intended in the operation. With a scalpel the cartilage was formed to correspond with the wax model and then dropped into normal salt solution. A small transverse incision was then made at the upper part of the nose just opposite the inner canthi and extended down to the bone. A periosteal elevator

was inserted and by careful, blunt dissection the skin and subcutaneous tissues were undermined nearly to the tip of the nose and a bed made for the transplant.

I can readily understand that if too much tissue has been loosened about the nose by the blunt dissection that there would be too much space for the section of cartilage and it may slip too far to one side or the other and require some kind of fixation, which might interfere with the best results. The section of cartilage was now slipped in above and gently pushed into place and fitted rather snugly. The incision at the upper part of the nose was closed with horsehair sutures and a small collodion dressing applied. The wound healed nicely and it is almost impossible to see the line of incision.

I think we may expect a permanent improvement, as Beckman reports a case which he had observed for two and a half years, in which no apparent change has taken place in the transplanted cartilage. This patient's appearance, as you can see by the cuts, has been very much improved and, more important still, his mental state, which was very much depressed, has become much more cheerful.

THE TREATMENT OF MAXILLARY SINUSITIS.

BY

GEORGE C. WEBSTER, JR.

(Read at the Tri-County Homœopathic Medical Society at Chester, April 11, 1916).

WE are all aware of the epidemic of influenza which has this last winter, swept over the country, and of the particular virulence of the infection.

At a recent meeting of the Delaware County Medical Society (an old school organization) the topic of the day was influenza. This discussion was singular in that practically every man present placed most emphasis upon the unusual number of complications, almost without exception, an infection of one or more of the accessory sinuses of the nose, or a middle ear involvement.

These were all general practitioners, and it shows how commonly involvement of the sinuses are met with in acute infections of the nose and throat; also that they occur in direct

proportion to the virulence of the invading organism and the receptivity of the host. The influenza bacillus ranks high in the list of those bacteria commonly acting as an immediate causative factor in Sinusitis, and it did not lose any of its reputation in this last visit.

Of all the sinuses most commonly involved, to the degree of requiring medical attention, the maxillary antrum is the most constant, and incidentally the easiest of approach for treatment.

We are familiar with the anatomical structure and general appearance of the nasal cavities. We are also just as familiar with the rarity of a perfect nose, at least an interior structural view, indeed it is an exception.

By an imperfect nose we imply one with a greater or less degree of mechanical obstruction, which if it be at all marked, spells certainly some trouble for the patient sooner or later in a mild or severe form.

It is not conceivable to one familiar with the nose and infectious processes to reason that an infection in the nose or throat should extend to the opening or ostium of a sinus and stop right there; certainly that is seldom the case; on the contrary it walks right in and commences making itself at home, but like the greater portion of the mucous membrane it will run its course and recover if it has a fair opportunity of drainage, which is evidenced by the fact that the greater percentage, by far, of all cases which do become involved, spontaneously recover; nevertheless even these cases could be advantageously hurried and more safely guided to recovery by a few and simple means at the disposal of the doctor, acquainted with and prepared to examine the nose of his patient, presenting the symptoms enumerated by Dr. Mackenzie in his paper upon the symptoms and diagnosis of maxillary sinus disease.

Since we have concluded that the ordinary case of antrum suppuration which does not recover spontaneously, does not do so because of some obstruction, it behooves us to relieve or remove the offending obstacle.

The most constant obstacle to satisfactory drainage, I believe to be an enlarged middle turbinate, especially an anterior end, or a turbinate lying unusually close to the lateral wall and impinging upon a hypertrophied uncinat process. Neither of these structures are affected singly, but the predominance of

obstruction may be in either. Next in importance is a deviation of the nasal septum, and it is surprising with what regularity the sinusitis selects the side to which the septum deviates, even though it seems to take no prominent part in obstruction; yet that deviation may be the actual cause of prolonging an otherwise acute condition into the sub-acute and eventually the stage of chronicity.

What then are we going to do first to give the patient his best chances to escape with as little mechanical instrumentation as possible?

With a good reflected light and nasal speculum examine the nose and determine the offending obstruction, this in a certain proportion of cases will be found to be an extremely badly deflected septum, which will require operation before room can be gotten in the nose for treatment, but excluding this difficulty, the average case will offer space for treatment, which will consist in the application of 20% cocaine on a cotton carrier, to that side of the nose involved, particularly to the anterior third of the middle turbinate, and such portions of the uncinate process as can be reached; the treatment may stop with this, but better would be to follow by placing a cotton tampon of 10-20% argyrol in the spaces thus shrunk, between the middle turbinate and lateral wall, allowing it to remain 15-20 min. and removing, to be repeated daily if accomplishing the required results, *i. e.*, until cessation of symptoms and disappearance of pus. The majority of cases will respond to this simple treatment.

Of course as in any other inflammatory process, the ice cap or hot water bottle, proper emptying of the bowel, and internal medication are indicated; in some cases good results are also obtained by the use of vaccines. It may also be necessary to give some hypnotic for relief of pain and to secure sleep.

Should the middle turbinate be hyperplastic and not amenable to shrinkage, or lie so close to the lateral wall as to make it impossible to get between it and the uncinate process, one of two measures may be resorted to; luxation of the turbinate by means of a blunt dissector or, amputation of its anterior end by means of the snare; this then will give free vent to anything but a locked in empyema which is due to swelling of the mucous membrane about the ostium of the sinus, effectually corking, as it were, the container.

Should this be your experience your next procedure would be the needle puncture through the inferior meatus, usually readily accomplished by one familiar with the parts having shrunk the infer. turb. and cocaineized the lateral wall a Lichtwitz needle is introduced beneath the inferior turbinate, directed upward and toward the outer canthus of the eye, about opposite the mid point of the turbinate and pushed into the sinus, with a syringe air is then introduced and with fluid in the cavity an unmistakable gurgling is heard as the air and secretion escape through the ostium, often associated with a foul odor; the sinus is then washed with about a quart of warm normal salt solution, if marked improvement does not occur after 6-8 days of such treatment it is evident some antiseptic and stimulating solution is indicated, as the mucous membrane needs some extra assistance other than that of natural metabolism, and for this purpose the antrum may be filled, after washing with 10-20% argyrol, Silver nitrate in successive treatments from 5-25%, or alcohol 50% to pure alcohol.

If the process goes on without recovery after 4-5 treatments of this kind, it probably will not respond to anything short of radical treatment or at least such measures as should be left to the rhinologist.

The further treatment would consist in making a large opening into the sinus, the route to be selected by the surgeon for the purpose of constant and absolute drainage. The least radical is the Krause operation which removes the anterior end of the inferior turbinate and with a special instrument a large hole is made into the sinus by puncture through its inner wall, anteriorly and near the floor of the nose, making a permanent opening into the nose and affording drainage at its lowest point, also making possible limited instrumentation within the sinus.

The Canfield operation, consists in making an opening into the inferior angle of the antrum just in front of the inferior turbinate. It accomplishes the same end results as the Krause, but permits of easier access to the antrum and more thorough inspection.

The Caldwell-Luc and the Denker which is a modification of the Caldwell-Luc are decidedly radical operations and are for such cases as require curetting of the antral mucosa and free permanent drainage. They both require a good sized opening in the canine fossa with a counter opening in the inferior

meatus of the nose. The opening in the canine fossa is allowed to heal immediately following the operation; the opening into the nose being permanent, making these two into one large cavity, offering the best possible drainage, and sufficient room for future inspection, lavage and stimulation of the antral mucosa.

The Cowper operation is practiced where the antral condition is unmistakably due to a diseased tooth root involving the alveolar process, and consists in an opening through a tooth socket, but this probably belongs more properly to the dental surgeon. This operation is however, fast giving way to one of the afore mentioned methods of approach.

Any of these operations may be well and painlessly done under a local anæsthetic and in many cases, this is decidedly preferable as Dr. Geo. Alexander has lately reviewed in an article upon the technique of said operations under local anæsthesia.

Trusting these few suggestings may be of some real help to you in the cases you will surely meet with in the future, I wish you the best of success in their treatment.

PYELITIS IN PREGNANCY.

BY

G. F. BAER, M.D., PITTSBURGH, PA.

(Read before the Allegheny County Homœopathic Medical Society).

PYELITIS is the cause of more or less anxiety at times during pregnancy. I do not wish to infer that in every case the condition is present, but there are times when the condition presents itself and causes a great deal of thought and study, especially as to the future welfare of the mother and the child in vitro.

A study on this subject may be of some importance, especially as to what course to pursue which will result in an abeyance of the condition and a cure.

In acute catarrhal pyelitis the condition is unilateral as a rule, the lining membrane of the renal pelvis is inflamed, associated with dilatation of the same with congestion of the kidney

parenchyma, dilatation of the organ, and vessels engorged. The parenchyma does not share in the infection. We may find one of two conditions, a primary dilatation of the pelvis and secondary infection or vice versa. This condition is acute in its onset.

Without going thoroughly into the symptomatology of the condition, the usual history of the case is a sudden acute pain in the region of the kidney accompanied by the symptoms of a high fever, gastric disturbance, shock, and prostration; there is increased frequency of urination which becomes painful, and the urine contains pus and renal cells. The kidney is always enlarged, tender and almost without exception movable.

True pyelitis of pregnancy is an acute catarrhal inflammation in the pelvis of the kidney, which occurs during the course of a normal pregnancy. It is acute in its onset, usually unilateral, affecting more frequently the right than the left kidney, running an acute course and tending to spontaneous recovery, without permanent injury to the kidney.

There are three factors which operate conjointly:

1st. Stasis of the urine, due to compression or kinking of the ureter, or partial closure of the ureteral openings.

2nd. Pyogenic organisms.

3rd. Severing of vitality or the infliction of trauma to some parts of the renal pelvis.

These three factors in pregnancy are prone to exist.

As to the urinary stasis some confusion seems to exist. Some believe the stasis is due to compression of the ureters at the brim of the bony pelvis by the gravid uterus. Others maintain that because of the congestion of the bladder the ureteral openings become partially occluded. Dr. Lee maintains that the ureters become kinked as the result of the upward traction by the pregnant uterus.

How do bacteria gain access to the pelvis of the kidney? Authorities differ materially also on this question. Some believe that they enter from the outside, pass into the bladder, then upward; others contend that the blood vessels are the main channels in transportation. Again, the theory has been expounded as to the lymphatics being the mode for transporting the infection. Here the contention is, that the lymphatics travel directly from the ascending colon to the pelvis of the right kidney, while the route of the lymphatics on the left side is vague and interrupted. This would somewhat explain

why the right renal pelvis is so frequently involved and why obstinate constipation with the likelihood of putrefaction is one of the most important predisposing causes.

As to the particular organism which causes pyelitis, the bacillus coli communis seems the most dominant. The third factor in the development of acute pyelitis of pregnancy, namely injury to a portion of the pelvis of the kidney, may be the result of a previous pathological condition, or it may be brought on as a result of a highly acid residual urine in the ureter, or again, to the irritating toxins, which, according to Abderhalden, are elaborated in every case of pregnancy, the fetus and placenta acting as foreign bodies in the system.

The usual history is that of a woman, pregnant from the fourth to the eighth month, whose previous history has been perfectly normal, when, without discovered cause or following exposure, during the night or when arising, is seized with severe, cramp-like pain referred to the abdomen; there is usually a slight chill, with nausea and vomiting; the pain recurs, is persistent, and usually localizes either in the bladder or in the region of one of the kidneys. It is to be remarked in passing, that frequently all the pain is referred to the bladder; there is a sharp rise in temperature, it may go as high as 105 in the evening and fall almost to normal in the morning, and the patient feels decidedly ill. Urination increases in frequency, becomes painful and oftentimes the call for relieving the bladder is almost continuous; the chill, with rise in temperature, is repeated, and the patient has recurrent pains in the region of the kidney lasting for a few days. The blood examination shows the typical picture of a suppurative process; usually a disproportionately large percentage of polymorphonuclear cells, generally above 85 per cent, and many times above 90 per cent. The urine is usually acid and contains pus in varying quantities. The muscles of the abdomen protecting the region of the affected kidney show spasmodic rigidity, and pressure especially in the costovertebral angle causes pain, the kidney is swollen and if the uterus is not too large the kidney can be palpated.

In an uncomplicated case the temperature gradually drops after five or six days and in the course of two weeks becomes normal, the secretion of pus from the pelvis usually lasts for a considerable period of time after all symptoms of inflammation have subsided.

The duration of this disease depends upon the virulence of the infection and the resistance of patient. A recurrence is possible and the condition may become chronic. Only 60 per cent of the women go to term and the baby is often still-born, under weight or shows other signs of lowered vitality.

The prognosis of acute pyelitis of pregnancy is good as to the ultimate recovery of the mother.

Cystoscopic examination reveals usually the bladder moderately inflamed, otherwise normal, except for the pressure on it of the pregnant uterus. Owing to the presence of the greatly enlarged uterus, some difficulty may be experienced in using the catheterizing cystoscope. The ureteric openings will be found usually on the sides of the central swelling caused by the uterus and will be much more widely separated than normally. A catheterized specimen of urine from the affected kidney will show pus mixed with urine and evidence of an acute catarrhal pyelitis while that collected from the other kidney is normal, except that it generally shows a large number of granular renal epithelium cells present. The mucous membrane of the healthy ureter and kidney bleeds more easily than that of the diseased side.

This although a remarkably refractory disease, is nevertheless amenable to appropriate treatment. In its acute form with high fever, sharp pain and a disquieting general state, suitable treatment will cut short all complications. The chronic latent form with turbid urine is often mistaken for vesical affections and is therefore treated by means of lavages of the bladder. After a brief period of supposed improvement the symptoms return until the proper diagnosis has been made. Lastly, in certain cases, the pyelitis is due to the presence of a calculus, floating kidney or some intestinal affection, especially appendicitis. For any treatment to prove effectual it must be based on a knowledge of the cause.

Medical treatment is usually sufficient. It has antisepsis for its object viz: to disinfect the urine by administering suitable drugs as well as by lavage of the kidney pelvis. Among the drugs for internal administration are urotropine, uraseptine, salol and benzoic acid, which has yielded excellent results.

Urotropine is given in tablet or in cachet form to the amount of 20 to 30 grains a day. It requires to be continued for some time if a good result is to be obtained. It is often prescribed for 20 successive days, followed by a rest of ten days. This

repeated for several months. Urotropine is apt to give rise to certain disturbances, not, it is true, of any great importance, but which require to be recognized. Its use may determine attacks of congestion of the kidney, with albuminuria or even haematuria. Inasmuch as it gives off formol it irritates the bladder and renders micturition more frequent. If the patient suffers from renal disease a smaller dose of urotropine should be given or uraseptine should be prescribed instead.

Arheol is also of service and has been recommended by many observers. Its effects must be watched in order to stop short of provoking renal congestion manifested by lumbar ache. Uraseptine is prescribed in two teaspoonful doses daily, benzoic acid in 5 drop doses every 2 hours.

This medicinal treatment may be assisted by drinking Contrexeville, Evian or Thonon waters, or, still better distilled water. The mineral waters should be taken in the morning before arising, three or four tumblers at ten minute intervals, the patient instructed to remain on her right side as this posture allows the water to drain out of the stomach more rapidly than if the patient were on her back, followed by fasting for two hours. This secures copious diuresis and actual flushing of the urinary tract.

The diet must be regulated, but it is not necessary to impose a strict milk diet. As a rule it will suffice to prohibit red meats and preserved meats, salt meat, the crustacea and alcoholic beverages. In the presence of pronounced pyelitis it is well to prescribe the dechlorided lactovegetarian dietary. Strict milk diet is only indicated in special cases accompanied by severe pain. In view of the dependence of certain cases of pyelitis upon affections of the digestive tract, the gastro-intestinal functions must be looked to. Experience and clinical observation points clearly to the coli-bacillary origin of a large proportion of cases of pyelitis.

Losner, by ligature of the intestine, determined the appearance of the colon bacillus in the urine. Heubner and others have found this organism in the urine during attacks of enteritis and obstinate constipation. The pyelitis of pregnancy is referable to the same pathogenesis in the great majority of instances and is consequent upon constipation so often met with in pregnant females.

Pyelitis may be met with in the course of appendicitis and found that it disappeared when the appendix is removed. Under

these conditions it is plainly necessary to establish a suitable dietary and to evacuate the intestines by the administration of mild aperients.

Should the treatment described above, followed for a sufficient period of time, fail to exert the desired effects, we must take steps to wash out the kidney pelvis. This has been greatly facilitated by the use of Albarron's "onglet." In some instances a few lavages will suffice to bring about recovery, but in others the process has to be repeated a number of times. Should there be signs of cystitis, before attempting anything else it behooves us to have recourse to vesical instillations of a weak solution of nitrate of silver in order to overcome the acute symptoms. N. B.: It is understood of course that it is not a case of tubercular pyelitis.

The *modus operandi* is as follows: The urethral canal and vesical mucosa are anæsthetised by means of a solution of stovaine (1 in 200 to 1 in 100) to which a few drops of a 1 in 1000 solution of adrenaline has been added. We can inject from 40 to 50 grammes of the anæsthetising solution. That having been done the bladder is distended with sterilized water or normal saline solution. The object of the latter is to neutralize any excess of nitrate of silver when the kidney pelvis has been washed out with this drug.

Urethral catheterization should be done with every possible precaution and gentleness. Repeated catheterization of the ureter is not infrequently followed by an attack of ureteritis so that after three or four interventions it should be discontinued. In some instances the obstacle is due to a kink in the ureter caused by the displacement of a floating kidney. In this case the patient must be placed in the Trendelenberg position in order that the kidney may fall back into its proper place. Should the catheter catch against a spot high up in the ureter it is advisable to inject some oil.

Nitrate of silver is most commonly used for washing out the kidney pelvis. The solution must be at a suitable temperature, otherwise it is apt to cause sharp pain with faintness. The strength of the solution varies in the hands of the different practitioners. Some prefer instillations with a strong solution, 1 to 2 per cent while others, Michon among them, prefer weak solutions, 1 in 1000 or at most 1 in 500.

Argyrol or collargol, 2 or 3 per cent, have also been em-

ployed. Bear in mind that collargol may determine attacks of congestion or infarcts.

Lavage with acetate of aluminum is very beneficial. The lavage is repeated twice or thrice weekly. In slight cases of pyelitis once every eight or ten days will be sufficient. When the difficulty of introduction is very great it may be desirable to leave the catheter in, shifting from time to time to prevent deposits forming upon it.

As a rule this treatment yields rapid and satisfactory results, but antisepsis of the kidney pelvis is very difficult to achieve and a number of cola bacilli may remain behind, thus paving the way to a subsequent out-break.

Autogenous vaccines might be employed when all other methods have been tried and have failed.

Surgical treatment varies according to the individual case. If there be pyelitis with retention, and urethral catheterism prove to be impracticable we must have recourse to nephrotomy; in the presence of a floating kidney nephrectomy. Should there be a calculus it must be extracted, otherwise the pyelitis cannot possibly get well. When pyelitis is dependent on appendicitis our attention must be concentrated upon the latter.

Two common forms of infection of the kidney pelvis are that due to gonorrhea on the one hand and pregnancy on the other. In cases of gonorrhœal pyelitis medical treatment should first be tried and if not successful we must have recourse to lavages. The main thing is to prevent an acute infection becoming chronic because the latter may run on indefinitely.

In the pyelitis of pregnancy which is invariably associated with acute symptoms and high temperature, too much reliance must not be placed on medical treatment. Moderate distension of the bladder may have good results and may overcome the tendency to retention. It may however have to be maintained for some time. Should it prove inoperative we must wash out the kidney pelvis whereupon the temperature may fall forthwith. If need be the catheter is to be left a demeure, with periodical lavages. In cases of chronic pyelitis frequently repeated lavages should be instituted. When the retained urine amounts to 30 or 40 grammes, the lavage should be repeated often, according to the condition of the urine. Always try to ascertain the cause of the pyelitis so that it can be dealt with at the earliest possible moment.

SOME INTERESTING SURGICAL CASES.

BY

HERMAN KESTING, M.D.

Surgeon to West Side General Hospital, St. Paul, Minn.

(Read before the Minnesota State Homœopathic Institute).

THE first case I wish to present is Mrs. L. Age 34. Married. Complained of severe general abdominal pain, bilateral rigidity, no jaundice, temperature 102-4/5, pulse 106. Patient says she fell down four stairs and severe abdominal pain started immediately. She never had a spell like this, and never was sick before. What is the diagnosis? Some doctors said it was appendicitis; some gall-stones; some duodenal ulcer. What incision should be made? We made a right rectus incision and found the appendix practically normal, but removed it because it might cause trouble later on. By further exploration we found the gall-bladder filled with stones; (84 in all). Since these stones were of medium size and the mucus membrane of gall bladder not of the strawberry type of inflammation, we decided to drain rather than to remove the gall-bladder. The stomach and duodenum were normal. Patient made a fine recovery:

Moynihan says: "Gall stones are present in approximately 10% of all bodies examined on a post mortem table." And Naunyn writes: "On an average every tenth human being and of elderly women perhaps every fourth has gall stones. In probably 9 persons out of 10, who carry gall stones, the disease is never recognized."

How do we recognize gall bladder trouble? The most cursory examination into the history of a long series of cases treated by operation will show that in almost all the earlier symptoms which has for years caused intense suffering at times is *Indigestion*. Most cases refer the trouble to the stomach and not to the liver. Almost all patients and some doctors believe that there must be evidence of jaundice to associate the suffering with gall stones. Yet jaundice is an infrequent and an inconstant symptom of gall stone disease. Symptoms and signs of gall stone disease are: Pain and colic, nausea and vomiting called indigestion, jaundice, fever and tumor.

Gall stones being diagnosed, what is the treatment?

W. Mayo says that all gall stones should be removed in all cases, since they are a foreign body. I believe that the irritation brought on by gall stone disease is a great predisposing cause of cancer, especially of the pancreas. What kind of an operation is indicated? At the Mayo Clinic, the procedure is to remove the gall bladder in about 19 out of 20 cases. I asked why they remove so many and the answer was: (1) It is just about as safe to remove the gall bladder as it is to drain; (2) The gall bladder only holds about 1½ oz. of bile, while there are about 30 oz. of bile excreted in 24 hours and therefore the gall bladder does not have much function; (3) They had too many cases come back again for re-operation.

I have two patients now that were operated a year ago and two years ago respectively by other doctors who have all the symptoms of recurrence of gall bladder trouble. These two cases had gall bladder drained but really they needed removal of the gall bladder.

Next patient, Mrs. K., Age 52, had a train of symptoms as follows: severe abdominal pain (general); tenderness over the gall bladder region; tumor palpable over gall bladder region; slight jaundice; nausea and vomiting. Diagnosis is gall bladder trouble. Treatment: right rectus incision high up. Gall bladder was fully distended and felt more like a kidney; transverse colon was adherent and required a careful dissection in order to prevent a fistula into the gut. The fluid of greenish serous nature was removed and a large round stone the size of a walnut was lodged in the neck of the bladder and beginning of the cystic duct. In order to remove the stone, we had to break it in parts; four quarters were removed and a rubber drain inserted into the gall bladder. I wanted to remove the appendix too for fear that an inflammation due to this operation might disturb and set up an inflammation of the appendix. The doctor that referred the case said not to bother with the appendix, since patient never had any trouble with it. Four weeks after this operation, patient complained of severe acute abdominal pain, at first general and followed by vomiting after which tenderness over the appendix became manifest and rapid pulse and temperature. A diagnosis of appendicitis was made. Again we operated; made a McBurney incision and removed a suppurating appendix; put in a rubber drain to the most dependent portion and patient made a good recovery.

Next patient was a baby four months old, having a spina

bifida. We diagnosed it as a myelocoele. The defect existed in the skin, in the posterior osseous wall of the spinal canal and in corresponding portions of the dura, arachnoid, and pia. The posterior portion of cord was split. The central canal of cord was open to the air. Fluid had collected between pia and arachnoid, anterior to cord. Skin was present only at the base of this tumor. The hernial sac consisted of pia mater with a covering of cord substance. The nerve roots ran from the cord forward through the sac. At birth the covering of the myelocoele was red and inflamed so we used goose grease to keep the covering soft; after three months this covering was quite well healed. The tumor gradually got larger and more tense due to the spinal fluids and at four months there was a small pin hole opening due to the pressure, so I decided to give the baby a chance by operation. The baby was operated head down so as to prevent escape of fluid. Made a circular incision to free the sac, but as the outer layer really was the cord, we had no true sac so could not prevent the escape of fluids. The baby died after two days. If this had been a meningocele, the operation would have been facilitated and operated like a hernia, the sac consisting of dura and arachnoid tied off and the redundant tissue placed in the defect of osseous portion. Then fascia of both sides of spinal column sutured over and skin closed transversely. Good results have been gotten but a myelocoele is an impossible case.

Next patient was a boy 13 years old, who was shot in the abdomen by a 22-cal. rifle by one of his playmates. I saw the boy half an hour after the accident and he complained of pain in the lower abdomen. The pulse was strong. I probed the wound but could not get into the abdomen with probe and from outward appearance it looked as if no bullet had penetrated the abdominal wall. I thought if the bullet had not entered the abdominal cavity an exploratory wound would soon heal and no damage would result, but if there should be trouble in the abdominal cavity, we would lose the boy by waiting, so we operated. Made a left rectus incision and at once it was apparent that we did the right thing by operating. Many holes perforated the ileum; much blood and feces lay in the abdominal cavity. We stopped all hemorrhage by tying off the bleeders and we began to suture each hole in the intestine, first with plain catgut continuous Lembert and then over this continuous Lembert silk suture. We closed 17 holes in the

intestine, sponged out the fecal and bloody matter; put in four large rubber drains through stab wounds and closed over original incision. The boy was operated November 28, 1914, and allowed to go home January 2, 1915. Today he is as well as ever, delivering newspapers. In these doubtful cases I believe it is safer to open and explore.

Next patient is a girl three years old. The diagnosis is congenital absence of the right tibia and congenital absence of mid-metacarpal and its phalanges of left hand producing a claw-hand. Since there was no tibia, there was no true knee joint and no true ankle joint. From the deformity it was decided to amputate at the knee. The X-ray picture will show the deformity better than I can explain to you. Many doctors, including W. Mayo, saw the patient and decided that amputation would be the choice of operation. We did not remove the patella and the line of suturing flap was posteriorly.

We have a very interesting patient at the West Side Hospital at present,—a man 30 years of age who was run over by the platform of binder which dragged him for about 30 feet. He attempted to get up and found that his legs would not move and complained of abdominal pain. Diagnosis was a broken back at lower dorsal region, with a probable severance of cord. Patient was brought to the hospital and then came the question what to do. With the aid of Dr. Gillette it was decided to put on Bucks extension to thigh and legs, with foot of bed elevated and a fracture board below the mattress. About 10 lbs. of weight on each leg. The patient felt much more comfortable as soon as the extension was on. The bladder and rectum too are paralyzed and need attention. Since the majority of these cases die of a cystitis with an ascending infection, we make a great effort to keep these parts as clean and normal as possible. Patient is catheterized four times in twenty-four hours, and bladder irrigated with sterile boric acid solution about once a day. It was questioned whether a laminectomy would help. In this case since there was a great danger of infection, we decided the more conservative treatment. It is impossible to tell whether the cord is severed unless we would cut down. The X-ray would not show it and the symptoms may come from pressure as well as from severance. If the cord is cut, then the patient will never get any better but if the cord is intact, he will have a chance. At the present time patient is feeling fine and it

is now five weeks since the accident. The prognosis of course is very bad.

Mr. N. H., age 40, was working for Swift & Company; while on a moving train fell to the ground and picked up unconscious and bleeding from the ear. He was taken to the hospital; for several days patient seemed to be improving and then all at once he became wild and furious so that several men had to watch him. We decided to trephine since there were several suspicious places of injury on scalp; by exploration could not see a fracture of skull bones but we trephined through the parietal region. By palpation there seemed to be fluid underneath the dura and so I passed a probe through the membrane and out flowed a bloody serous fluid. The pressure over the dura was slackened. Inserted iodoform gauze drain and replaced the flaps. Patient cleared right up and made a fine recovery.

A boy 14 years old was knocked down by an automobile. He had a slight laceration of scalp, full pulse, pupils equal, sluggish in reaction, semi-conscious and gradually growing more unconscious. I explored and found a fracture of occipital bone. Trephined and put in a gauze drain over the bleeding point and replaced flaps. Boy went home in twelve days, feeling as well as ever.

Dr. Van Lennep of Philadelphia, believes in exploring every suspicious fracture of the skull and trephines when he finds the fracture. He says "it is better to explore 99 times out of 100 and find no fracture than to let one fracture get away without trephining."

Mr. O., age 30, complained of severe general abdominal pain, distention, nausea and vomiting. Bowels moved a little during the day, marked muscular rigidity on both sides, no temperature, pulse 100. Right rectus incision. Serous fluid oozed out of wound. Removed a fine thread like appendix which had been obliterated. The ileum was greatly distended with gas and bowel obstruction was evident. There was a reflection of bladder peritoneum which bound down the lower portion of ileum in such a way as to produce a complete bowel obstruction. This membrane was dissected loose, bands of adhesions broken up which released the obstruction. Gall bladder, stomach, and duodenum were normal. Inserted a stab drain and closed original wound. Patient went home well in twelve days.

Mr. J. A., age 31, was working at Swift & Co. While hauling a 500 lb. barrel on truck, the barrel started to roll off, so he tried to catch the barrel and with his abdomen pushed back hard. Suddenly he got faint, vomited water and had a cold sweat. The doctor at Swift & Co. called and examined the patient and found no visible signs of injury. After staying there for an hour, the patient felt better and attempted to walk home but did not get quite that far, so was allowed to go to a neighbor's home. Patient moaned all night and all the next day. Twenty-eight hours after the accident he called one of the doctors from Swift & Co., who recognized that patient had general peritonitis. He was transferred to the hospital at once. When I first saw him, he had no palpable pulse and was in bad shape. The doctors thought of a perforation of intestines due to the injury. At the time of operation a saline infusion was given intravenously. Pulse could now be felt at 160 per min. Right rectus incision made. A large amount of fluid escaped through the wound, exudate and adhesions were everywhere. Appendix was practically normal. Gall bladder was distended with bile but no stones. On examining the stomach I found that there was a perforation on its anterior aspect near pylorus and near greater curvature. I placed two Lembert rows of tannic acid catgut to invert the edges of the ulcer and then I transplanted some fat and fascia and over this I put in a row of interrupted Lembert silk sutures; inserted a large split rubber tube with iodoform gauze wick to the ulcer region and another such tube to the liver region, and closed up my wound. Patient rallied and got to feel quite well; then the wound broke wide open and drained very freely. At the end of seventeen weeks he still had some temperature and drainage; it looked very suspicious of empyema of pleural cavity right side so I passed a large needle into this region for exploration, but got no pus or fluid. After nineteen weeks patient was allowed to go home and he kept on gaining in weight. Two months afterwards he was again admitted to the hospital; then I had X-ray picture taken which showed some fluid in right lower chest region. I removed a section of the right eighth rib and let out about one quart of rotten stinking pus. Most of this pus seemed to be located between the liver and diaphragm (subphrenic abscess). The fistulae all healed up well and patient made a nice recovery: good appetite; good gain in weight. Just about the time we

were to let him go home, he developed typhoid fever. A positive Widal was present. He drank milk from the Bass Dairy which was recently condemned for typhoid epidemic.

It is very unusual to have a patient get well from perforated gastric ulcer or duodenal ulcer when it is operated so late as thirty hours after perforation. Gastro-jejunostomy was thought of but I decided not to do it in this case since the time of perforation had elapsed so long.

Last winter at St. Joseph's Hospital clinic, twelve cases of gastric perforation were reported and every one that was operated on twelve hours after the perforation died, and in these cases gastro enterostomy had been done. So I feel rather proud of the result I got in my case.

MACEWEN'S SIGN: ITS VALUE IN DIAGNOSING CHANGES IN INTRACRANIAL PRESSURE.—In an analysis of the anatomical conditions which enter into the production of Macewen's sign and of the value of its presence in diagnosing changes in intracranial pressure, (*Arch. Ped.* vol. XXXII No. 12, p. 909,) Herbert B. Wilcox M.D., N. Y. City, concludes as follows:—

(1) The skulls of children of various ages and development have percussion notes peculiar to the state of the cranium.

(2) It is possible to establish a note normal to the various types of crania found in infants and children.

(3) A positive Macewen's sign exists when variation from the normal note is found. It consists in a relative change rather than a definite condition common to all diseased crania.

(4) The sign is better elicited by the stethoscope than by the unaided ear.

(5) Increased clearness of sound when percussion is done over the posterior portion of the skull rather than near the stethoscope is diagnostic.

(6) The sign uniformly accompanies conditions of increased intracranial tension, and is not found unless this causative factor exists.

(7) It is equally applicable to infants and older children.

(8) It was present in 50 of 53 cases of tuberculous meningitis.

(9) It was present in 17 of 18 cases of meningitis of other types.

(10) It was present in all of 5 cases of poliomyelitis.

(11) It was found to vary directly with the development and recession of cerebral symptoms as complications of disease not directly affecting the central nervous system.

(12) It was present in 11 of 13 cases of pneumonia, in 5 of which lumbar puncture showed increased cerebrospinal fluid under pressure.

(13) The sign is uniformly lacking in children normal as to the brain and its coverings.

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FIFTY-SECOND SESSION

THE HEART IN THE AGED.

BY

G. HARLAN WELLS, M.D., PHILADELPHIA.

Clinical Professor of Medicine, Hahnemann Medical College and Hospital of Philadelphia.

It is a generally recognized fact that with advancing age alterations in the circulatory system, including both heart and arteries, are almost always found. So universally is this the case that the milder forms of cardiac disability met with in advancing years might be considered as physiological alterations. These physiological alterations in the heart usually begin to manifest themselves to a very slight degree at the age of forty-five or fifty. The individual finds that his powers of endurance are not what they used to be. Shortness of breath and a general feeling of fatigue manifest themselves after exercise, which a few years before would have caused no disturbance whatever. In a normal adult, the progress of cardiac failure may be so slow that it is scarcely perceptible and I have known individuals to reach the age of ninety with a cardio-vascular system that might well be the envy of persons thirty years younger. In the average case however, though the change from year to year may be slight, when we compare decade with decade, a decided failure of the cardiac power can be detected.

Numerous studies have been made for the purpose of determining whether the physiological changes in the heart, incident to advancing age, result in a decrease or an increase in the size of the heart. The observations of Müller have positively established the fact that the relative size of the heart in advancing years is a little larger than in middle life. If we exclude those cases of hypertrophy of the heart due to distinct

sclerosis of the arteries and also make allowance for the fact that alterations in the position of the edges of the lungs may lead to errors of judgment as to the size of the heart as determined by the physical examination, it would seem probable that there is actually very little difference in the size of the senile heart as compared with that of persons of forty and fifty years of age.

The most important subjective symptoms in the average senile heart may be said to be shortness of breath on exertion and a general lack of strength and endurance. The objective phenomena are, first, a change in the pulse rate, and second, a loss of muscular tone in the first sound of the heart at the apex. The latter sign probably results from a gradual atrophy of the muscular fibers and their substitution by the connective tissue. It is probable also that the atrophy of the muscular tissue accounts for the fact that the heart in old persons is exceedingly sensitive to the effects of poisons, especially to the toxemias of infectious diseases. How often do we find a person of seventy-five or eighty years of age with a relatively good heart, going down very rapidly under the attack of pneumonia, erysipelas or some other bacterial toxemia, which seems to rapidly interfere with the functional capacity of the heart despite all our therapeutic efforts to support it.

Having briefly referred to the so-called physiological deterioration that takes place in the cardio-vascular system, let me next call your attention to the pathological affections of the heart most commonly met with in the aged. Occupying by far the most prominent place in the cardiac pathology of the aged, is arterio-sclerosis and its associated lesions. Where the arterio-sclerotic changes are confined to the general arterial system and do not invade the coronary arteries, the most common alteration in the heart consists in a hypertrophy of the left ventricle induced by the efforts of the heart to force the blood through the gradually stiffening arteries. If the blood pressure is not exceedingly high, after a moderate degree of hypertrophy, the function of the heart may be carried out satisfactorily for a great many years without further deterioration taking place. In fact we have often been surprised at the longevity and freedom from distressing symptoms of patients thus affected.

Where the arterio-sclerotic changes involve the coronary arteries, as is frequently the case, a much more serious group of

conditions develop. In such cases not only do we have extra work placed upon the heart by the general arterial stiffening, but we have a profound interference with the nutrition of the heart muscle through the diminution of its blood supply. Thus, a heart is compelled to do an unusually large amount of work with an unusually small amount of nutrition. Under such conditions serious degrees of myocardial degeneration result, producing dilatation of the heart with general venous stasis and, in many instances, attacks of angina pectoris. The symptoms presented by these cases are so familiar as to scarcely deserve repetition. Unfortunately we are all familiar with the attacks of dyspnea at first induced by exertion, or coming on during sleep; the swollen lower extremities; the digestive disturbances; the attacks of vertigo and the precordial distress of the chronic senile cardiopath. The pains complained of by these patients varies from a sensation of discomfort in the precordial region to the severe darting pains of agina pectoris.

The significance of these painful sensations often gives rise to a good deal of anxiety on the part of the physician, many medical men believing that if the pain is due to *true* angina pectoris, the prognosis is a fatal one, whereas, if it is *not true* angina, the case is not serious. Personally, I believe that the attempts to split hairs on this subject are useless. First, because patients vary so in their descriptions of pain that it is difficult to set any fixed standard of what constitutes *true* and what *false* angina pectoris and, second, because my clinical experience is in entire accord with the opinion of Sir James MacKenzie, that the pains of so called true and false angina pectoris are both due to one and the same cause, namely to fatigue of the heart muscle. If the deterioration of the heart muscle is extensive and serious, the pain is likely to be severe and, therefore, the prognosis is bad. The important point in arriving at this opinion however, is not so much the mere statement of the patient as to the character of the pain, as the objective signs accompanying the pain and the evidences of cardiac failure that we obtain by our physical examination.

The physical signs found in association with the arteriosclerotic type of senile heart are, first, hypertrophy of the left ventricle; second, accentuation of the aortic second sound; third, elevation of the blood pressure; fourth, impairment of the muscle tone of the first sound at the apex. Valvular defects do not as a rule comprise any large percentage of the

pathological changes found in the senile heart. This is partially due to the fact that persons suffering with endocarditis, of rheumatic or syphilitic origin, rarely live to an advanced age. Most of the valvular lesions developing late in life are the result either of relative insufficiency of the valves due to dilatation of the ventricles or to the formation of sclerotic plaques on the valves.

Fatty degeneration of the heart and brown atrophy of the heart are both met with in a certain percentage of senile hearts. With the exception of the fact that the blood pressure is likely to be low in these cases, in contrast to the commonly elevated blood pressure of arterio-sclerotic cases, the general symptomatology of the conditions are the same, as all of these pathological changes result in impairment of the function of the heart muscle and in cardiac insufficiency.

The treatment of the senile heart, whether of the so called physiologic or of the pathologic variety is a matter of great importance to the general medical practitioner. Prophylactic care in advanced life naturally deserves careful consideration. This is particularly true in certain occupations entailing long continued physical or mental strain, and he is a wise man who gradually reduces his activities as he approaches old age. Those of us who have noted the rapid increase of cardio-vascular diseases of a degenerative type as the result of modern business life cannot doubt the wisdom of shorter hours of work and less responsibility for the man past sixty or sixty-five years of age. Frequent periods of rest in the recumbent position are also decidedly helpful, enabling the heart readily to redistribute the blood throughout the entire organism and preventing a tendency to stasis in the lower extremities. A moderate diet consisting largely of milk and fruits and vegetables is also to be recommended.

Tobacco undoubtedly exercises a deleterious effect on a heart that is even partially enfeebled by advancing years and its use should be reduced to a minimum or better discontinued entirely. Tea and coffee in some instances produce effects somewhat similar to tobacco; alcohol when used in moderation seems rarely to produce any serious disturbance.

The medicinal treatment of the senile heart presents a very interesting problem. In the so called physiological deterioration there is little to be done except to correct such concomitant ailments as indigestion, attacks of bronchitis and other milder

ailments that arise in the life of every aged individual. In the pathological forms, however, the aid of medical treatment is always necessary. In the milder forms of cardiac degeneration, I have found the iodide of arsenic and tincture of cactus grandiflorus to be two of our most efficient remedies. Chininum arsenicosum is also a remedy of great importance, particularly where the cardiac disturbances are associated with general debility, anæmia, loss of appetite and digestive disturbances. Lycopodium, nux vomica, hydrastis and carbo veg. are all remedies of importance where the cardiac condition is dependent upon or aggravated by disturbances in the digestive system. Ignatia, phosphoric acid and gelsemium can be relied upon to help us out in cases presenting disturbances in the nervous system. Aurum muriaticum, plumbum, baryta. carb. and calcaria phosphorica are remedies that should be carefully considered in cases associated with fibrous or atheromatous changes in the arteries. I should also like to dwell on the value of digitalis, when properly indicated, in the treatment of the senile heart. Myocardial degeneration and elevation of the blood pressure, are commonly referred to in the text-books as contraindications for the use of this drug, but these conditions should not prevent us from administering this remedy when it is otherwise well indicated. I am satisfied from numerous clinical observations that the cautious and careful use of digitalis combined with adequate periods of rest will frequently tide over a period of serious cardiac failure in aged persons and the continued use of the drug may so control the regularity of the heart as to add several years to the life of the patient.

ROWLAND G. FREEMAN M.D.—New York City, in a paper on the value of the X-Ray in intrathoracic lesions in children, (*Arch. of Ped.* vol. XX-XII No. 12, p. 891) says that the X-ray is probably of most value in making a diagnosis of miliary tuberculosis, often in determining a pneumonia of which we get no physical signs, in making a differential diagnosis between empyema and pneumonia, or in a corroboration of a diagnosis of diaphragmatic hernia, while in lesions of the heart it furnishes reliable information as to enlargement, in the modification of the shape of the heart, in dilatation or the presence of exudate and will often differentiate for us plastic exudate from fluid.

EDITORIAL

THE BALTIMORE MEETING OF THE AMERICAN INSTITUTE OF HOMŒOPATHY.

As most of our readers are aware, the annual meeting of the American Institute of Homœopathy will be held this year at the Hotel Emerson, Baltimore, June 25th to July 1st. As Pennsylvania is the nearest strong homœopathic State, the members of the homœopathic profession throughout the country and the homœopathic physicians of Baltimore in particular very properly look to Philadelphia and Pennsylvania for encouragement and support in making the meeting a success. There is no better method by which the individual practitioner can contribute to the success of the meeting than by attending its sessions and by inducing one of his associates to make application for membership in the Institute.

The local arrangements for the entertainment of the Institute are in charge of Dr. William Dulaney Thomas. The management of the Hotel Emerson has agreed to furnish three assembly rooms for the scientific sessions and adequate space for the business exhibits. The Emerson is a strictly modern hotel in every respect and is amply able to furnish comfortable and satisfactory quarters for the Institute and for all the visiting members.

A number of social gatherings have been arranged for including a trip by steamer down the Chesapeake Bay.

The Chairmen of the scientific bureaus all report a good list of papers so that the success of the meeting from a scientific, as well as from a social standpoint, seems well assured.

At times, the individual homœopathic physician is inclined to question the value of attending the meetings of the Institute and of keeping up homœopathic organizations in general. The meeting of the Institute in Baltimore at this time brings to our mind a fact which emphasizes the ever growing importance of strong organizations among homœopathic practitioners. At the very time this editorial is being written, a bill is pending

before the Maryland Legislature entitled *An Act to Regulate the Dispensing of Medicines by Physicians*; Section I of this Act reads as follows: "Be it enacted by the General Assembly of Maryland, That it shall be unlawful for any physician to compound or dispense any medicine intended for the use of any human being unless such physician is a duly qualified pharmacist under the law of this State, except in cases of emergency; and all medicines compounded or dispensed in such cases of emergency shall be administered by such physician in person or under his or her immediate direction." Such a bill has, of course, the strong backing of the pharmacists and of those practitioners of the dominant school who feel that the enactment of such a law would curtail the practice of homœopathy. As individuals, our protest against such a law would have but little influence and it is only through our state and national organizations that we can bring sufficient influence to bear to prevent the passage of this and similar Acts. The physician who is not willing to do his share in maintaining the organizations necessary for his own protection is shirking his duty and forfeits the respect of his fellow physicians.

G. H. W.

"DRUGLESS HEALERS."

THE editorial in the March number of the *HAHNEMANNIAN* upon the above subject presents a topic that deserves more consideration and effective action than it has yet received.

A considerable portion of that editorial is couched in the form of interrogations: to some of these interrogations I may be able to present an answer.

The editorial opens with the query, "What should be the attitude of the physicians towards the ever increasing number of Drugless Healers?"

The Bureau of Medical Education and Licensure of this State has given most serious and protracted study in the effort to discover the best answer to this question. We think that we discovered it. This is the answer: apply the *EDUCATIONAL TEST*.

Let the "Drugless Healer" qualify by a standard of "preparedness," similar in character, if not to the same degree as that applied to the medical doctor. Insist that the "Drugless

Healer" shall have an education and training sufficient to qualify any one for a safe understanding of the conditions he assumes to treat. If a man has an adequate training in reference to the structures and functions of the human body, and an accurate understanding of the conditions and changes that occur in the body by reason of the invasions of diseases; that man may be safely trusted to exercise his own judgment in the application of any form of therapy in which he has been well instructed.

Before the standards were determined or the tests applied, numerous conferences were held between representative "Drugless Healers" and the Bureau of Medical Education and Licensure. The matter was frankly discussed as to the fairness and reasonableness of the measures proposed. The "Drugless" representatives did not regard the proposed standards too high, or the tests too severe. Candidates for examination for licensure admitted that they should readily answer the type of questions presented.

It was felt that it would be much more just to compel those who desired to practice upon the sick to submit to an educational test, rather than to employ drastic methods to eliminate them, without first attempting to discover what they might know.

As to the practical working out of this proposition, no method could have been employed that would have proven more drastic than a fairly applied educational test.

Before an attempt at regulation by educational standardization was made, the most conservative estimates by those best informed placed the number of "Drugless Healers" in this State, exclusive of Osteopaths, as between 1200 and 1500.

When the Bureau of Medical Education and Licensure announced that those having certain credentials and years of practice would be licensed to practice by exemption, and those who presented certain evidences of educational qualifications would receive an educational test, the following was the result.

But 490 applications were received: of these 149 received licenses based upon credentials and years of practice. 68 received licenses by passing the very easy examinations that were given them; the remainder were rejected. None have received a license upon the conditions that now obtain.

The conditions now enforced in reference to the admission of the "Drugless Healer" to practice in this State are as fol-

lows. Any "Drugless Healer" who hereafter enters into practice in this State must have a preliminary education identical to that required of a student for admission to the medical colleges of this State. That is to say, a four year high school course, yielding sixty counts by examination, and one year of college credits in physics, chemistry and biology. The professional course consists in two years of training identical to that prescribed by the medical colleges of this Commonwealth, excepting only materia medica, pharmacy and surgery. The third year of professional training must be spent in a college approved by the Bureau of Medical Education and Licensure. Finally, the legal right to practice can only be obtained by passing an examination before this same Bureau. When obtained, the license states upon its face that it does not confer the right to administer or apply drugs, or to practice obstetrics, surgery or osteopathy.

There is no doubt that a considerable number of uneducated and unworthy persons may have received a license to practice as "Drugless Healers," just as it is equally certain that in the administration of the first Medical Practice Act in this State, very many ignorant and unworthy medical men were admitted into medical practice.

This condition is transitory, automatically corrected by time. The vital matter in legislating upon conditions of this kind, or in the administration of a Legislative Act, is to bring about the most just, practical and permanent solution of the problem. This I think we have accomplished in this State.

As to the number at present licensed to practice as "Drugless Healers" in this State: while it is to be regretted that such a compromise was necessary, yet the fact is obvious that unless a compromise of similar nature had been effected, the practical solution of this problem would have been postponed to a period when a much greater number would have been admitted.

You are in error in your expression, "ever increasing number of Drugless Healers," as far as this State is concerned. The number has ceased to increase. The bars have been put up in the low places of the medical fence. Those that now get in must be well trained and competent individuals.

As to the causes assigned in your editorial as producing the flood tide of "Drugless Healers," *i. e.*, the higher cost in time and money of obtaining a medical education, and the expressions of scepticism and agnosticism towards drug therapy made

by prominent medical men; while these have been factors, they are not in the judgment of the writer the most potential ones.

In my judgment, the commercial methods adopted by the colleges training the "Drugless Healers" and the fact that there exists some really beneficial contributions in psycho-mechanical therapy not recognized or employed in medical practice have proven the greatest elements in swelling the ranks of the "Drugless Healers."

The writer has personally inspected most of the more prominent schools that train the "Drugless Healers." Without a single exception they were all purely commercial institutions, their existence seeming to depend largely upon the employment of commercial methods. In the best of them the equipment was entirely inadequate, and in most of them was a mere farce. The faculties in none of them were capable of giving the character of instruction that would properly train a man to treat the sick by any method. The faculties of all of them contained some members obviously ignorant, untrained and unethical.

As defective as these institutions are from the viewpoint of giving adequate training, yet they are all very alert business institutions. They attract young men to become "Drugless Healers" because of the financial rewards such a form of practice holds out. Their catalogs and advertising matter make prominent the feature of how much money their graduates may earn after a brief course of instruction. Their "follow up" method to an inquiry from a prospective student is most thorough. I am familiar with an instance where a single letter of inquiry resulted in a series of fourteen letters, each containing advertising matter showing the attractive financial results to be expected by graduates from their school; each letter being more persuasive and making the terms a little easier.

The largest department in the largest college training the "Drugless Healers" is taken up with printed matter. I saw it there by the tons, and was informed that they sent out over 10,000 pieces of printed matter each month. I inspected another "Drugless College" in which I could have carried away their library, laboratory, museum and entire scientific equipment in my dress suit case, yet they required two of their largest rooms and four busy clerks to attend to their advertising matter. Another college, claiming to have over 2000 graduates, upon some of whom had been conferred the degree of

M. D. was conducted in a private residence, the only lecture rooms being in the cellar. Yet this same institution issued a regular magazine, and its advertising matter claimed for it superior instruction to any other in the country.

Although the writer has personally inspected their colleges, observed their technique, talked with their faculties and students, read their text books, examined for license their graduates, yet he is unable to discover the precise contribution that has been made by these thrusters, punchers manipulators of the spine.

At the same time one is forced to admit the fact that in some cases good results have been obtained by manual therapy in those cases that have resisted internal medication, apparently skillfully applied. Whether the cure was psychic or mechanical cannot be proven. It would be supreme folly on the part of the medical profession to defer the employment of a curative agent until they could demonstrate just how it accomplished results. It is always difficult to prove any real cure, or to precisely discover what was the potential curative agent. The analysis and proof of any cure is often beyond human ken. Ethical medical men are quite as apt to be confused in reasoning "post hoc, ergo proctor hoc" in the reports of their alleged cures as the laity.

Even although so many of the "Drugless Healers" may be frauds and charlatans, it does not follow that there may not be some valuable contributions in manual therapy not now employed or recognized by ethical medicine.

Has ethical medicine attempted in any adequate or scientific fashion to recover that which may be of value in manual therapy? The reaction against the drug fetish comes in a degree, because our colleges in the past have placed an undue emphasis upon drug giving, and only taught the student part truth at that: omitting to give a working knowledge of the complete therapeutic range of the drug. At the same time men graduated with insufficient training in the laws of health, of how to keep well, of how people could and did get well without drugs. They graduated without being able to intelligently apply or recommend such adjuvants as mechanical, electrical and hydro therapy, or to appreciate the proper scope of each. The fact that our better colleges have only recently given sufficient attention to these subjects but confirms the neglected past.

In spite of the open mindedness that our profession is as-

sumed to maintain, most of us still look with exceeding scepticism towards any contribution that filters in except through the orthodox medical channels.

The medical doctor is too apt to consider those things in which he was not instructed in the school of his graduation as unworthy of serious consideration or investigation.

There is nothing that propagates new schools, sects and cults in more fecund fashion than the failure of established medicine to judicially investigate their alleged contribution.

There is nothing upon which schools, sects and cults thrive better than creating the impression that they are being prosecuted by the established medical branches.

It is time for the medical profession to wake up to the fact that a sick person may safely reach the health terminus by more than one therapeutic route.

The belief of a great number of people that they have been relieved or cured by methods of manual therapy does not justify the acceptance of the claims of its exponents; but it does demand a fair and thorough examination of methods and a study of end results.

No form of error can be long propagated unless it has in it some measure of truth. May not the failure of ethical medicine to attempt to discover what measure of truth was in manual therapy be responsible for its propagation under the present group of "Drugless Healers?"

D. P. MADDUX, M.D.

Member of the Bureau of Medical Education and Licensure of Pennsylvania.

DANGER IN TRANSFUSION.—Though the recipient is the one that derives the benefit from transfusion, he also assumes the greater risk. The principal danger to avoid is acute cardiac dilatation from too much or too rapid a transfusion with resulting overburdening of the right heart. In the cases where symptoms of cardiac embarrassment arose, the artery to vein method was used. But with vein to vein technique it is almost impossible. Another danger is the introduction of air emboli into the circulation of the recipient. A small amount seems to do no harm, but large quantities may cause death from acute dilatation of the right ventricle. H. H. Kerr, in *The Virginia Medical Semi-Monthly*.

GLEANINGS

THE DIAGNOSIS OF GASTRIC CANCERS.—(1) Never diagnose cancer on a single symptom.

(2) Suspect cancer in everyone who complains of gastric disturbance and prove otherwise.

(3) Do not exclude cancer because of absence of tumor.

(4) Do not exclude cancer because of absence of vomiting.

(5) Do not exclude cancer because of absence of pain.

(6) Do not exclude cancer because of anorexia.

(7) Do not exclude cancer because of absence of lactic acid bacilli or lactic acid.

(8) Do not exclude cancer because of early age.

(9) Do not exclude cancer because of normal or increased HCl.

(10) Remember that blood in the stomach or stool is the most important symptom in the diagnosis of gastric cancer.

(11) Hold suspect of cancer all cases that continue to show blood in the stomach or stool after proper treatment.

(12) Hold suspect all those who show gastric disorders at the cancer age whether of sudden onset, old standing, or preceded by ulcer symptoms.

(13) Hold suspect those who fail to get relief from proper treatment.

(14) Consider syphilis in all cases of tumor. The tumor may be gumma. It is well to do a Wassermann reaction in all cases whether surely cancer or not.—Jerome Meyers in the *Medical Record*.

WHOOPIING-COUGH.—The *Boston Medical and Surgical Journal* of July 8, 1915, states that as a result of the isolation, in 1906, of the Bordet-Gengou bacillus, which is now recognized by the greater number of authorities as the causative agent of the disease, it would seem that a new era in its prophylaxis and management is opening before us. Thirty years ago Goodhart (*Guide to the Diseases of Children*, 1885) remarked: "The remedies now in vogue for the second stage are in no sense specifics; they control the violence of the paroxysms, but have no destructive action upon the supposed germ which causes them. But if the disease be due to a germ, and the behavior of the disease is certainly in favor of this view, then it is to be hoped that a specific will one day be found, and obviously any drug exhibited with such an object must be applicable at any time during the life of the germ." The discovery of the specific bacillus has naturally been of service in increasing the general knowledge of whooping-cough. Thus, if this etiology be conceded, it is found that, as in the case of scarlet fever, the period of infectiousness has been overestimated. In a paper published in the *New York Medical Journal* of May 22, Dr. Paul Luttinger, of the research laboratory of the New York City Health Department, states that the Bordet-Gengou bacillus is most often met with

in the sputum in the catarrhal stage and rarely later than the first week of the paroxysmal stage, and this fact has been confirmed by various other observers.

In the early part of last year the pediatricists of New York, profoundly impressed with the extent of the ravages of the disease, and believing that by systematic effort a distinct improvement in the situation could be effected, made an urgent appeal to the health department to take the matter up and devote its most serious attention to it. The department promptly assented to this request, and a survey conducted by the bureau of infectious diseases disclosed that among the chief reasons for the continued prevalence of whooping-cough were the following: Ignorance of the general public regarding the menace of this disease; insufficient attention, on the part of the physician and parents, to the isolation of the patient during the early period of the disease; lack of suitable dispensaries for patients ill with the disease; and neglect, in a large proportion of cases, to notify the health authorities. A special clinic for whooping-cough was then established in connection with the research laboratory, and this afforded an opportunity to follow up the patients in their homes. A large number of additional cases, which had not reached the notice of the health department, were thus discovered, and, in short, it was found that only about one-quarter of the cases of whooping-cough occurring had been reported. It was realized, however, that physicians were not very largely responsible for this poor showing, inasmuch as it was not usually customary among these people to call in a physician for this disease. For some time past all cases of the disease reported by dispensaries, as well as cases known not to be under the care of a private physician, have been kept under supervision by the district nurses of the bureau of infectious diseases; the nurses leaving cards of instruction and charging the family to keep the child quarantined for one week from the day on which the whoop appears. A week after the first appearance of the whoop permission may be given for the child to leave the premises, provided it is accompanied by an older person who will see that it does not play with other children, enter other homes, attend places of amusement, or ride on street-cars.

In the paper referred to, Luttinger gives a report of the results met with at the whooping-cough clinic from its opening in August to the end of the year 1914. In the treatment, drugs were employed in some of the cases and stock vaccines prepared from the specific bacillus in others, while in some instances both were given, and it is stated that these vaccines seem to have shortened the duration and severity of the paroxysmal stage; the average duration of the whoop being twenty-five days, as against forty days in those treated with drugs. To be successful it was found that the vaccine must be given in large doses. At first an initial dose of fifty million was given, but later this was increased to 250 million. In a small series of cases the vaccine was used successfully as a prophylactic, and in the prophylactic cases three large injections were given at three-day intervals; the first dose being 500 million, the second one billion, and the third two billion. It seems to have been the general experience that specific vaccines are of greater efficacy in prophylaxis than in the actual treatment of whooping-cough, but it is not to be expected that from any vaccine

results can be obtained equal to those from a serum like diphtheria anti-toxin. It would seem probable, from the experience at this clinic, that in some at least of the instances in which the vaccine was without beneficial effect, the reason for the failure had been the insufficiency of the doses employed.

At the conclusion of the report the belief is expressed that further experiments, with the view of obtaining more effective vaccines, and a closer cooperation of the profession in public health education, will help largely in the eradication of this scourge of childhood. As the studies progressed the necessity of more whooping-cough clinics, and of a pertussis hospital, became more and more apparent. Information just received is to the effect that the good results previously noted at the whooping-cough clinic in New York from the use of pertussis vaccine have continued unabated to the present time; in fact, they have been even better since certain modifications have been made in the preparation of the vaccine. Dr. Luttinger writes: "The applicants for treatment recommended by private physicians and institutions are so numerous (as many as eighty on a single afternoon recently) that we are fast outgrowing our present quarters and our appropriation. Regarding prophylaxis, while none of the vaccinated contracted the disease, we cannot be absolutely sure of the protective value of the vaccine until we have had an opportunity to compare vaccinated and unvaccinated cases during some circumscribed outbreak of the disease in an institution." It may be remembered that about a year and a half ago Dr. A. F. Hess of New York reported that in such an outbreak in an infant asylum, while the vaccine treatment did not appear to be of curative value, it proved of considerable prophylactic value. Of the 400 children in the institution, 244 had the vaccine administered to them prophylactically—in every instance before there was any sign of an attack—and of these, 20 developed the disease.—(*Therapeutic Gazette.*)

THE PITUITARY GLAND IN DIABETES MELLITUS AND OTHER ENDOCRINE DISORDERS.—The *Medical Record* of November 13, 1915, well says that diabetes is nowadays regarded generally as a disorder of multiple etiology. It is a variable symptom-complex dependent upon disease of one or more of the organs of internal secretion. This conception has been based partly on clinical observation and partly on experimental investigation. Until recently the pancreas was the chief center of interest in the study of the problem of diabetes, but latterly attention has been shifted mainly to the pituitary gland. That the posterior lobe of this organ plays an important part in carbohydrate metabolism has been demonstrated by Goetsch, Cushing, and Jacobson; while the last two observers, in conjunction with Weed, have shown that electrical stimulation of the pituitary gland causes glycosuria, even when this organ is severed from all nervous connection with the abdominal organs.

The next point of attack has been the study of the histological changes occurring in the pituitary gland in diabetes and in other disorders of the organs of internal secretion. This investigation has been carried out by H. J. B. Fry (*Quarterly Journal of Medicine*, July, 1915). The post-mortem material available for this research comprised eight cases of diabetes mellitus in which disease of the pancreas was also demonstrated.

three cases of acute pancreatitis, one case of carcinoma of the pancreas, two cases of myxedema, one case of cystic goitre, one case of Addison's disease, and two cases of hypertrophied thymus. The most important result of this study was the demonstration of definite histological changes in the anterior lobe of the pituitary body in cases of diabetes. These changes consist in the presence of adenomatous masses of eosinophile cells, colloid invasion of the anterior lobe, and areas of cellular degeneration. In cases of acute pancreatitis and carcinoma of the pancreas histological changes in the pituitary are absent or slight. In myxedema there occurs in the pituitary an increase in weight resulting from an increase in the connective-tissue elements and a hyperplasia of the chief cells. In goitre there is a hyperplasia of the chromophile cells, especially of the eosinophilic cells, and an increase of colloid material in the interglandular cleft. No histological changes were observed in the pituitary gland in the case of Addison's disease or in the case of status thymolympathicus.

Fry presents a tentative explanation of the activity and mode of secretion of the pituitary gland. He states that the eosinophilic and basophilic cells are derived from the chief cells by the formation of zymogen granules. The granular cells represent a stage of active secretion, and glandular activity is greater toward the center and posterior border of the anterior lobe. From the granules is formed the colloid which is temporarily stored in the interglandular cleft, and thence passes into the posterior lobe and infundibulum and gains access to the cerebrospinal fluid. The hyaline and granular bodies are derived from cells of the anterior lobe which have been carried into the substance of the posterior lobe in the process of development. It is upon these cells that the call for increased secretory activity first falls. Colloid in the interglandular cleft is then utilized, and if there is an overdemand upon the secretory activity of the anterior lobe, colloid may invade the posterior part of the latter and the cells themselves become rapidly converted into colloid, until finally areas of atrophy of the cells appear. The question is still undecided whether the posterior lobe activates the colloid in its passage, or adds some specific secretion of its own, or acts merely as an indifferent supporting structure.—*Therapeutic Gazette*.

THE PRESENT STATUS OF TWILIGHT SLEEP IN OBSTETRICS, BASED ON A COLLECTION STUDY OF OVER 2000 CASES.—In the *American Journal of Obstetrics* for November, 1915, Rongy states that a summary of the results of the various investigators, as well as his own experience, brings forth the following conclusions:

1. That if the method was practiced according to technique of Gauss in fully 90 per cent. of the cases, the results were uniformly favorable to both mother and child. Complications and untoward effects took place in those cases only in which the dosage, as directed by Gauss, was not strictly adhered to.

2. The standard (stable) preparation of scopolamine was, at first, used but little. Open-market preparations of hyoscine were employed, and this, in all probability, accounts for a great number of patients who suffered from marked restlessness. With the introduction of the stable (Straub) preparation of scopolamine, this factor has been greatly diminished.

3. Morphine, or narcophen, was not repeated except in extreme cases of restlessness.

4. Nearly all agree that the treatment should not be instituted until there are definite signs of active labor.

5. It is interesting to note that fully 90 per cent. of the patients were treated in a special room assigned for this purpose.

6. Seventy-five or eighty per cent. of all cases treated were primiparæ. The average duration of treatment in primiparæ was seven hours, in multiparæ four hours. The average number of injections in primiparæ was five and one-half, in multiparæ three.

7. In about 60 per cent. of cases the first stage was apparently shortened. All are unanimously agreed that the second stage is definitely prolonged. The third stage does not seem to be influenced.

8. Ten per cent. of the cases showed various degrees of restlessness requiring restraint.

9. Four cases showed signs of active delirium during the postpartum period, but all recovered in a comparatively short time.

10. Treatment was discontinued in four per cent. of cases for the following reasons: (a) Too early administration of the drugs; (b) disproportion between fetal head and pelvis; (c) cessation of labor pains; (d) marked alterations in the fetal heart sounds; (e) repeated injections without any apparent effect.

11. There was no maternal mortality which could possibly be ascribed to this treatment.

12. Labor was terminated in primiparæ by the use of forceps in 26 per cent. of these cases. However, fully 80 per cent. of these were low forceps, which merely required lifting the head over the perineum.

13. A general anesthetic was used during the stage of expulsion; and in most instances chloroform was the anesthetic of choice. Ethyl chloride, ether, and somnoform were also used.

14. Seventy-eight per cent of babies cried spontaneously; 16 per cent. were born oligopneic and required active resuscitation; 3 per cent. were born asphyxiated; 3 per cent. were stillborn—12 of these, or 1.2 per cent., may be accounted for by well-recognized pathological findings, such as transposition of the viscera (two cases); monstrosities (two cases); macerated fetus, cerebral hemorrhage (autopsy), etc.

Of the remaining 18 cases, or 1.8 per cent., the writer is aware of a number of instances in which large doses of either scopolamine or morphine, or both, were given.

15. The treatment is contraindicated in: (a) primary inertia; (b) labor associated with hemorrhage; (c) feeble fetal heart sounds; (d) multiparæ giving history of short labors.

"Twilight sleep" has its greatest usefulness in primiparæ, particularly during the first stage of labor where the dilatation is progressing slowly.

16. It is the consensus of opinion that amnesia, with varying degrees of analgesia, should be our aim. However, the majority consider that the successful termination of a case depends, primarily, upon the degree of amnesia induced.

17. Most investigators are of the opinion that "twilight sleep," in properly selected cases, will become a permanent addition to our obstetric

armamentarium. We must, however, realize that the great enthusiasm which was created by the introduction of this treatment may in a measure account for the high percentage of successes. In addition, we must bear in mind that this treatment was carried out by men best fitted for this work under the most favorable hospital surroundings, and it is but natural to expect results that under ordinary circumstances could not have been attained. What the results would be if this treatment were administered in the average home, by men not especially trained in the practice of obstetrics, may be judged by the isolated reports coming from such sources.

It is, therefore, the writer's belief that it would be unwise to adopt this form of treatment to be universal, because the greatest number of women are still confined at their homes, either by midwives or by physicians who have not the time nor the training to practice such a delicate therapeutic measure. However, this should not detract from its value. An analysis of the various reports shows that most investigators are fully agreed that "twilight sleep" is devoid of any danger to the mother, and that by constant and careful watching the dangers to the baby are also eliminated.

Judging from the writer's personal experience, extending over a period of fifteen months, and covering a series of over 350 cases, he feels that the value of this treatment, and its acceptance as a recognized therapeutic measure, will depend upon our interpretation of the physiological phenomena produced by these drugs. If we accept the theory that the semi-consciousness, induced by Gauss' method, prevents the actual perception of pain, although apparently present in all its clinical phases, then labor must be considered painless. Therefore, to refuse to adopt this treatment would be a failure on our part to abide by the trust reposed in us. On the other hand, if the mental state induced does not actually prevent the sensation of pain and the patient is actually suffering, even though pain be modified, then the value will devolve upon the degree of diminution of pain or analgesia, and not upon the want or recollection of pain or amnesia.

Personally, the writer finds it difficult to reconcile the fact that a patient, displaying all clinical evidences of pain, such as crying and groaning, does not actually experience it. However, he is fully convinced that pain, in many cases, is not well tolerated, and that this would warrant the adoption of this method in selected cases; more especially in primiparæ of the highly emotional type, and in multiparæ in whom we anticipate a long and tedious labor.—*Therapeutic Gazette*.

TREATMENT OF TUBERCULOUS ARTHRITIS.—Dr. J. J. Nutt (*Americ. Jour. of Orthoped. Surg.*, January, 1916) states that the most essential thing in the treatment of a tuberculous joint in a child is attention to the general condition. The patient should be outdoors twenty-four hours a day and the country is preferable to the seashore. A mixed diet is recommended, but when the temperature is above 100 and albumen and casts are found in the urine, a milk diet is to be tried. The skin should be kept active by frequent cleansing and by the stimulating effect of air baths, in the sun if possible. These patients should be allowed to run and play like other children, with one or two rest periods during the day. So beneficial is every added muscular movement that the author prefers, when bed treat-

ment is necessary, a well adjusted brace to a frame. A frame is more effective than a brace, however, where extension is required. Plaster jackets are not hygienic, cannot be easily readjusted if uncomfortable, and cannot be refitted if inefficient. A brace can be readjusted every day, if necessary, and the skin can be kept clean and healthy. If an absolute cure is not obtained limited movement will tend to reawaken the disease; therefore the resistance of the joint must be well tested by removal of all protection and frequent examination over a period of six months. When deformity exists no attention need be paid to it until treatment has been under way for several months, in order that the spasm may disappear. No great force should be used to overcome deformity; gentle passive movements may be employed, if care is taken to watch closely for any activity of the disease. The author has little faith in Bier's passive congestion treatment, tuberculin, heliotherapy, and Beck's bismuth paste.

INDUSTRIAL PLANTS IN PENNSYLVANIA DEFY LAW COMPELLING MEDICAL ATTENDANCE.—It has been called to the attention of the Bureau of Medical Education and Licensure of the State of Pennsylvania that certain industrial and commercial plants have violated the Medical Practice Act of January 1st, 1912, by the employment of unlicensed persons to give medical and surgical attention to their injured employees, and to render services such as may be legally performed only by one licensed to practice medicine in this State. This Bureau, therefore, desires to place emphasis upon the following facts:

The head of the medical department of any industrial or commercial plant must be a licensed physician of this State.

It is not permissible for either an unlicensed assistant or a nurse to in any way alter the treatment until the order to do so has been given by the licensed head of the department.

It is legal in Pennsylvania for any one, licensed or unlicensed, to apply first aid to an injured person, but it follows as a pre-requisite that the licensed head of the department must see this patient at his next visit and direct the future treatment.

It is not permissible for an unlicensed assistant or a nurse to perform any type of surgical operation.

"First Aid" is to be construed as meaning the rendering of only such services as will contribute to the safety and comfort of the injured until he or she has the opportunity of consulting a licensed physician.

The attention of industrial and commercial plants is called to the fact that violation of this Act is subject to severe penalties.

A VALUABLE DIAGNOSTIC AND PROGNOSTIC SIGN IN CHOREA OF CHILDREN.—Henry Heiman (*Archives of Diagnosis*, April, 1914.)

This sign may be demonstrated in the earliest stage of chorea before visible manifestations appear, and is produced in the following manner: The palm of the patient's left hand is placed upon the palmar surface of the observer's right hand. Then the thumb of the patient is embraced by the index and middle fingers of the physician and the other four fingers firmly grasped by the remaining fingers of the examiner. The right hand of the patient is similarly grasped by the left hand of the physician. The

attention of the patient is then invited by asking him a simple question; for instance, his name, age, address, etc., at the same time having him look directly into the eyes of the examiner. If the patient has chorea the twitching of the hands will be distinctly augmented each time his attention is engaged by the mental concentration required to answer a question. The firmer grasp the observer has upon the patient, and the more he is able to disengage the patient's attention from the examination, the more surely will he be able to discern the finer muscular twitchings indicative of the early stage of chorea.—Harold R. Mixsell, (*Archives of Pediatrics*, December 1914.)

POOR HEALTH IN THE CHILD. SOME DEVELOPMENTAL INFLUENCES AND THEIR IMPORTANCE TO THE ADULT.—John Bryant, (*Boston Medical and Surgical Journal*, 1914, p. 795.)—What per cent. of ptoses, adhesions and other abnormalities of the adult are congenital? What is their influence upon health? The author has put in some two year's work in studying autopsy, and clinical material and here presents a preliminary note. All interested in improving the health of the child should read the original article. The following conclusions are reached: (1) Adhesions, ptoses and other demonstrable physical defects are of very common occurrence at all ages in both sexes, but the frequency of these defects in the adult is not markedly greater than in the child. (2) It is not improbable that such defects may stand in a causal relation to some at least of the disabilities of the child and the adult. (3) An anomalous ligament of Treitz may be a factor in obstruction of the duodenum. (4) A simple double measurement of the thorax is presented which is likely to prove an aid in the recognition of certain intra-abdominal abnormalities. This measurement is in a variable degree an indicator of physical efficiency and is useful after the age of five years. (5) The treatment of developmental defects is primarily non-surgical and if properly carried out in the child is preventive in that it will result in creating an adult not only more efficient, but one who may have physically more perfect children.—Willard S. Parker. (*Archives of Ped.* Dec. 1914.)

ETIOLOGY OF SCARLATINA.—Editorial writer (*Presse Med.*, June, 1914.) questions whether the old idea of the propagation of scarlatina by means of scales has any foundation except as the scales have become inoculated by discharges from the mouth and throat. He explains thus the undoubted cases of conveyance by means of letters, and clothing that has been carried for long distances. The hands have been infected from the mouth and so scales have remained in the letters, or the discharges have remained on the garments. Persons who approach the patients may carry germs in their clothing, shoes, and hair when they have come in contact with discharges. The germ of scarlatina is not eliminated directly by the skin. Inoculations of monkeys have proven the virulence of exudations from the tonsils. The virus of scarlatina is very resistant and remains active for many months. The author believes that abortive attacks of scarlatina with no rash are frequent. At the same time the throats contain virulent germs, which they spread about because no isolation is carried out. Epidemics of scarlatina coincide with epidemics of sore throat and these sore throats are probably true scarlatina. A most important prophylactic measure is

careful disinfection of the mouth and throat in all cases of sore throat. The scarlatina patient may convey contagion from the first moment of his illness, by the discharges from the mouth. By remembering these facts we shall be able to construct a better system of prophylactic care of the patient and insure the community against the spread of the disease.—*Am. Journal of Obs. and Diseases of Women and Children*. Feb., 1915.

IS THERE A SUCCESSFUL TREATMENT FOR SCARLET FEVER?—Koch states that during the ten years' experience of a particular hospital in which 1438 cases of scarlet fever were treated, the mortality was 15 per cent. The rate showed great variability. During one period of six months there was not a single death. The majority died very early from the general intoxication, the minority later from complications. When plenty of convalescent serum was available its curative power seemed indisputable. This holds good for normal serum which was employed less frequently. The author is certain that the very cases of scarlet fever which end fatally in the first few days can be cured by convalescent serum. The prompt effects seen in this connection far surpass those of antitoxin in diphtheria. As to how far normal serum can replace it remains to be seen. Doses must always be large, the serum must be sterilized, various sera may be combined, it can be given only in a vein, and amphyllaxis should not develop.—*Medical Record*, May 15, 1915.

THE CANCER DECALOGUE.—1. Do not cut across a cancer and leave part behind. The part remaining will grow more rapidly than if you had left it alone altogether.

2. An operation for cancer is an operation to save life. Cosmetic results are to be considered, but they are not to be weighed against recurrence and death a few years later.

3. Never manipulate a cancer roughly either before or during operation or more often than is necessary to make a diagnosis. To do so is the easiest way to drive cells into the lymph or blood current—hence metastasis.

4. Do not let a woman drag you into her delusion that her early cancer symptoms are due to the menopause. The menopause is a normal physiological state, and if the woman's organs are healthy she will be healthy.

5. Repair every cervix that is eroded, everted or the seat of a discharge.

6. Do not rule out cancer because the patient is not old. About 10 per cent. of cancers occur before thirty-five.

7. Do not tell your patients they have cancer if you are not sure they will follow your advice at once. If they are inclined to delay, tell them frankly what they have and what will be the consequence of delay. If they make their own choice let it be done with full knowledge of facts and prospects. Tell the relatives or friends in any event.

8. To save your patients from cancer, save them from delay. Do not wait for pain and cachexia—the signs of impending death.

9. Do not admit that incurable cancer is unrelievable cancer. Ligation, cautery, palliative removal and proven physical methods may change distress to comfort and add months or years. The patient who appeals to you for relief is the one to be considered—not reputation or "the effect on the community."

10. Be always on the watch for early suspicious symptoms. Be prompt to follow them to a definite diagnosis. Be courageous enough to insist on immediate proper treatment.—Jonathan M. Wainwright, A.M., M.D. in *Texas Medical News*.

PARAPNEUMONIC EMPYEMA.—In a paper entitled "Parapneumonic Empyema", (*Amer. Jour. Dis. of Child.* vol. II No. 1, p. 33.)—Linton Gerdine, M.D., Chicago, concludes as follows:—

1. Fluid is present in the pleural cavity in a large number of cases of pneumonia before the crisis and can be demonstrated, sometimes by physical signs, sometimes by Roentgen ray, and by puncture, even when other physical signs are not apparent.

2. The clinical course of the pneumonia may not be altered by this complication.

3. In the majority of cases the fluid is serofibrinous in character, though perhaps containing a large cellular element, polymorphonuclear in type. These fluids are sterile as a rule.

4. True pus is present much more rarely and may contain organisms of more or less virulence. The frequency of the presence of organisms in these cases cannot be decided on the data as yet secured.

5. The virulence of the isolated organisms determined by animal inoculation seems to be of value in prognosis.

6. Only in cases with serofibrinous and purulent fluids containing organisms of a high grade of virulence should surgical interference enter into consideration.

ALCOHOLISM IN CHILDREN.—Dr. C. Ortali, in *Gazetta degli Ospedali, Milan*, discusses both the injury from alcoholism in the parents and that from acquired alcoholism in children. He reiterates that a child procreated while one or both of the parents is drunk—even although the parents otherwise are only moderate drinkers—is usually below par in some way, mentally or physically, and refers to the reputation for physical and mental degeneracy borne by "holiday children." Even 1 per cent. of ethyl alcohol in the water will check the development of the embryo; 2 per cent. will cause development of deformities and the growth is much retarded, while with 4 per cent. there is no growth at all. Alcohol taken as a beverage passes into the ovaries, testicles and prostate and into their secretions. Both ovum and spermatozoa suffer from the injurious effect from the alcohol, which is pre-eminently a poison for protoplasm. The statistics of criminology show plainly the influence of alcoholism in the parents as a deficiency in the moral sense is one of the commonest manifestations of an inherited taint from alcoholism. The offspring are unusually liable to abuse of alcohol as they grow up; he has investigated this in a number of cases and found a family history of alcoholism in habitual drunkards even although they were brought up entirely remote from their parents, so that the influence of example and training was out of the question. He reports a case of multiple cerebrospinal sclerosis in a young man whose parents had been hard drinkers, and for which no other cause could be

assigned. The growth is frequently stunted in districts where there is much abuse of alcohol and the children of persons addicted to alcohol are peculiarly susceptible to tuberculosis. He also cites instances of the wasting away of infants nursed by drinking mothers.

Acquired alcoholism in children causes more intense intoxication than in adults and the symptoms are manifestly more predominantly in the nervous system; infants are liable to have convulsions but without fever or bowel trouble. When the alcoholism is chronic, the child is restless, grows very slowly and is liable to have insomnia, strabismus and gastrointestinal disturbances, finally wasting away completely. In older children the intoxication resembles more that in adults, but there may also be epileptiform convulsions, actual collapse, delirium or maniacal excitement. Intoxication from wine is characterized more by gaiety and excitement, while brandy, etc., bring depression and torpor. In intoxication from liquors, absinthe, etc., the plantar reflexes and perception of pain are exaggerated, while they are deadened with ordinary alcohol intoxication.—*Journal of Med. Soc. of N. J.* May 15.

X-RAY TREATMENT OF RINGWORM.—W. C. Oram (*Liverpool Med. Chir. Jour.*, 1914, XXXIV, 314) says that the ringworm fungus lies in the root of the hair, and the hair root lies in the follicle deeply embedded in the skin, where no remedial agent can reach it. The only way to bring about a speedy cure is therefore to remove the hair and with it the disease, for it is probable that no hair which has once become infected can ever become free from the disease. By the administration of a carefully measured dose of rays, an area of the head can be rendered absolutely bald, all the hair, infected or otherwise, falling out after an interval of from fourteen to twenty-one days after the exposure, leaving a perfectly healthy scalp without redness or soreness. A year ago an X-ray clinic was instituted by the Education Committee of the Liverpool Corporation, and during the past year 150 children have received treatment. During the period from August to December last year, forty-two children came for treatment; thirty-five of these were cured at the first exposure, *i. e.*, 85 per cent, and the average time which elapsed between the time of their first attendance and their being certified as free from ringworm and able to attend school was just under four weeks. The other 15 per cent, had to receive a second treatment, and the average time for these between their first attendance and their cure was twelve weeks. One child developed an eczema of the scalp outside the area treated. Otherwise all cases were cured within the three months' period.—*Am. Journal of Obs. and Dis. of Women and Children.*

CAUSES OF THE INSANITY OF YOUTH.—Dr. Bayard Holmes, of Chicago has a paper in *American Medicine*, August, 1914, on "Who Will Discover the Causes of Insanity of Youth?" We give its conclusions as follows:—

1. It is our contention that the opportunity of solving the problems of insanity is in the hands of the State, and that politically organized society is under an obligation which the administrative and legislative officers of the State have not adequately provided for but must for economic reasons ultimately assume. There is no private endowment which is undertaking

the study of these problems on such a scale as to give confidence in their solution by such endeavor.

2. Up to the present time, no one of the ills of life, no matter how mysterious it has appeared during our ignorance of its condition, its cause and its cure, has ever proven to be due to anything except natural, physical causes, discoverable by the method known as scientific research.

3. The very fact that the insanity of youth is not symptomatically unlike traumatic insanity, general paresis, alcoholic psychosis, the delirium of the infectious diseases and the frenzy of the toxemias, leads us to the reasonable presumption that its pathology can be made clear and rational by such biologic, chemical and physical researches (when pursued with sufficient faculty and equipment,) as have been rewarded with success in these familiar instances.

4. We have been convinced by the teachings of medical history and veterinary pathology that there are no mysterious God-sent or devil brewed diseases. There are no mystical, intangible, unapproachable sources of sickness and death. For every effect there is an adequate cause and for similar effects similar causes. We have every faith in the unity of natural phenomena and the existence of an adequate, tangible, rational, consequential, mechanistic cause for every malady, even though its major symptom may be a disorder of the human brain.

5. To the modern scientific mind and in enlightened public opinion there are no "hoo-dooes," no "evil eyes," no "curses," no "banshees," no "twisted ideas," or anything like them, adequate to drive annually fifteen full regiments of our brightest youths into hopeless custody and start them on an irrevocable physical decline, to end either in permanent confinement or in early death.

6. That society and that civilization are not fit to exist and can not long exist that expend a munificent quarter or more of the State budget on the pessimistic custody of its unfortunate citizens and yet provide no proportionate means of solving the riddle of insanity by such methods as have proved adequate to solve the problems of equally mysterious maladies.

7. Psychiatry presents the most promising field for research and dementia precox is the most important clinical group awaiting a scientific study and means of cure or prevention.—*Journal of Med. Soc. of N. J.* May, 1915.

DERMATOLOGIC REMINDERS.—Remember that painting a limited moist patch of eczema with a solution of nitrate of silver often promptly cures the disease.

Remember that within two months two female lice can become the grandmothers of 10,000 lice.

Remember that in pruritus cutaneous, the itching can be so intense as to drive the patient to suicide.

Remember there are few diseases more easy to cure than ringworm of the general surface of the body, and few diseases more difficult to cure than ringworm of the scalp.

Remember that cinchona and quinine can produce all the primary skin lesions, though most frequently it causes an erythema of scarlatinal type, attended by congestion of the fauces and followed by desquamation.

Remember that in some very chronic thickened eczemas, the tar may be rubbed in pure.

Remember that though furunculosis is most frequent on the back of the neck, face, forearms, buttocks, and legs, it may occur anywhere.

Remember that cannabis indica is sometimes very useful in stopping general itching.

Remember that some skins cannot tolerate even a small percentage of glycerin.

Remember that trichloroacetic acid is an excellent caustic.

Remember that Bier's hyperemia will remove pus from furuncles, but will not remove wrinkles.

Remember that cold cream may be distinctly beneficial in dry skins, as it protects against chapping, but it may be harmful in cases of seborrhea and acne, as it furnishes a better medium for the growth of bacteria.

Remember that a greasy skin is best treated with soap and water.

Remember that in monilethrix treatment is practically useless.

Remember that in treating intertrigo the first essential is absolute cleanliness.

Remember that in dermatitis herpetiformis itching may be complained of before the eruption appears.

Remember that every bullous eruption does not constitute pemphigus.

Remember that herpes facialis occurs in about one-third of all cases of pneumonia and malaria, and in almost one-half of the cases of cerebro-spinal meningitis, but is rare in typhoid fever.

Remember that most cases of herpes zoster get well spontaneously in one to three weeks.

Remember that arsenic is of little or no value in prurigo.

Remember that sulphur is the most efficient remedy in acne, and may be used in the form of powder, ointment, paste, or lotion.

Remember that in the treatment of plant-poisoning, wet compresses of a solution of sodium hyposulphite, one dram to the ounce, are useful.

Remember that in vascular nevi, especially those of small size, refrigeration with carbon dioxide constitutes one of the best methods of treatment.

Remember that sycosis vulgaris is sometimes cured by injection of staphylococci emulsions.—*Med. Rev. of Reviews.*

PEDIATRIC NEVERS.—Never give a child a dose of medicine without a clear and definite indication.

Never forget that the most reliable antipyretic measure for infants is the use of cold.

Never employ quinine for the reduction of temperature in children, except in cases of malaria.

Never fail to first clear the mouth and pharynx of mucus in all cases of asphyxia.

Never forget that nothing so well indicates that a child is thriving as an increase in weight.

Never forget that woman's milk is the ideal infant food.

Never be satisfied with a feeble cry in a newly-born child; if it does

not cry naturally and loudly during the first few days of its existence, spank it.

Never fail to insist that the mother train the child to regular nursing habits.

Never experiment too long with unsatisfactory mother's milk; if it cannot be made to agree with the child in two or three weeks, get a wet nurse or start artificial feeding.

Never make a diagnosis of poliomyelitis or rheumatism or malignant disease in a child until you have ruled out infantile scurvy.

Never fail to operate on a case of tongue-tie, unless the child is a bleeder.

Never refuse the child ice to suck in cases of catarrhal stomatitis.

Never fail to impress on the parents of a choreic that the general management of the case is as important as the administration of drugs.

Never hesitate to say that whooping cough is one of the most contagious and dangerous diseases known.

Never forget that severe and fatal nephritis may follow a mild case of scarlet fever.

Never make a child with measles swelter under thick covering; light covering should be used during the entire febrile period.

Never neglect to give a daily warm bath to a child as soon as the rash of measles has subsided; follow by inunctions, to facilitate desquamation and prevent the dissemination of the fine scales.

Never constrict the child's limb in any way after it has been vaccinated.

Never neglect to examine a child for diabetes if polyuria is present.

Never confuse empyema with unresolved pneumonia, pleuro-pneumonia, or tuberculosis.

Never make light of an attack of bronchitis in an infant; every such attack should be regarded as a possible precursor of pneumonia.

Never regard a case of whooping cough as over until you are sure that all dangers from broncho-pneumonia are past.

Never make a diagnosis of scarlet fever from the eruption alone, as a great many skin eruptions resemble it.

Never forget that the greatest danger in measles arises from pulmonary complications, and the frequency is greatest in children under two years of age.

Never neglect the ears in scarlet fever because there is no pain or tenderness; otitis may develop without these symptoms.—*Med. Rev. of Reviews*.

THE OCCURRENCE OF ABSCESS OF THE LUNG AFTER TONSILLECTOMY; WITH A REPORT OF NINE CASES IN ADULTS.—M. Manges (*Jour. of Surg.* 1916, XXX, 78.)

Manges discusses the frequency of abscess of the lung following tonsillectomy in the adult. He reports nine personal cases and mentions Bassim's series of 19 cases. He points out the fact of the frequency of this complication occurring in ward patients, and believes that some of the number are due to one of three factors i. e., (1) Carelessness in operative technique. (2) Hasty or incomplete pre-operative physical examination.

(3) Not remaining in the Hospital after operation a sufficient length of time.

Of the nine cases one died. Another left the hospital in critical condition. One required resection of one lobe of the lung. Another thoracotomy for pyopneumothorax. The mortality of the series was 22%.

The shortest time from operation until the appearance of the first symptoms was one day. The longest, fourteen days.

He believes that the etiology may be classed under five heads. (1) Anesthesia. (2) Aspiration of infected blood or pieces of tonsillar tissue. (3) Embolism or infarction of the lung. (4) Some special infective agent. (5) Some antecedent cause, either local or general.

In general the diagnosis was based upon rise in temperature, chills, altered breath sounds, dullness, flatness, expectoration, X-ray and bronchoscopy.

J. G. SPACKMAN.

FRACTURE OF THE NECK OF THE FEMUR. A STUDY OF THE TREATMENT AND END-RESULTS IN FIFTY-FIVE CASES.—A. McGlannan (*Surg. Gynec. and Obst.*, 1916, XXII, 287.)

He calls attention to the anatomical structure of the neck of the femur, i. e. The overlapping arches formed by bone plates in the cancellus tissue; giving the maximum amount of strength with the minimum amount of weight.

That the position in general is a drawing up of the shaft fragment behind the head. The trochanter is rotated outward. The lower end of the femur is adducted.

The effect on the blood supply of the neck by fracture is important. The vessels reach the bone by way of the capsule and periosteum at four points: (1) Ligamentum teres. (2) Junction of the head and neck. (3) Greater trochanter. (4) Lesser trochanter.

In general reduction is accomplished by downward traction, internal rotation, slight flexion and wide abduction.

The author has demonstrated by autopsy and operation that the position of extreme abduction cannot cause a malposition of the fragments, as they are carried along by the tightly stretched capsule and soft parts. He divides the cases into six classes.

1. Reduction under anesthesia. Fixation by lateral wire splints and interrupted plaster bandages.

2. Reduction under anesthesia. Fixation in a heavy cast from nipple to toes on injured side and a short distance on the uninjured side.

3. Adhesive plaster traction in two ways, abduction and inward rotation.

4. Traction by ice tongs through femur above the condyles.

5. Open operation. Fixation of fragments by nail.

6. Fixation by tying knees to a spreader (abduction) and the use of a Gatch bed.

The usual complications are discussed; circulatory, pulmonary, renal and nervous.

Of the 55 cases. 7 cannot be traced. 17 are now dead or helpless. Of 36 recent cases 4 died during treatment. 13 were completely cured.

8 were partly cured. 3 the length of time since treatment has not been sufficiently long enough to tabulate a result.

J. G. SPACKMAN.

PANCREATIC CYST AS A CAUSE OF UNILATERAL HAEMATURIA.—J. Ransohoff (*Surg. Gynec and Obst.*; 1916, XXII, 275.)

The author points out the fact that the condition is a comparatively rare one and gives the history and operative findings of a case as follows:

Man, age 61. Farmer. Tubercular family history. The present illness began three years ago with violent abdominal pain in the region of the umbilicus. The pain lasted from five to six days. It was referred to the left shoulder and left arm. He had recurrence of the pain one year ago with considerable tenderness remaining after the acute attack had subsided, in the left hypochondriac region and over the left kidney. In June a tumor appeared in the upper left quadrant of the abdomen. The urine contained large quantities of blood. He had lost 30 lbs. and had a profuse purulent expectoration.

On admission to the Hospital, there were rales over almost the entire left lung. The sputum contained staphylococci, streptococci, diplococci and sarcinae. There were no tubercular bacilli. The urine was very much discolored with blood. A palpable tumor as large as an adult's head was in the upper left quadrant. Flatness over the growth. The tumor fluctuated. Upon cystoscopy, a pulsating bloody stream was seen from the left ureteral opening. The diagnosis made at this time was a cystic sarcoma of the left kidney.

At operation the left kidney was delivered through a left lumbar incision and was found to be slightly enlarged and dark in color; otherwise apparently normal. The peritoneum was then opened and a large retero-peritoneal growth was palpated. The abdomen was opened and the spleen was found to be enlarged and also a large cyst of the pancreas was opened and drained of 1000 cc. The fluid upon examination was found to contain pancreatic digestive ferments. The walls were formed of granulation tissue and did not contain any pancreatic tissue. The patient died seven weeks later of a progressive increase in the pulmonary lesion.

J. G. SPACKMAN.

SUPRA-PUBIC PROSTATECTOMY UNDER LOCAL ANESTHESIA.—R. L. Payne Jr. (*Jour. of Surg.*, 1916, XXX, 88.)

Payne believes that local anesthesia is the anesthetic of choice in a large number of cases of prostatectomy. He points out the fact that these cases are in patients of advanced age and usually are complicated by chronic cardiac and renal disease, thus increasing the dangers of a general anesthetic, especially ether.

His technique has some slight modifications of the Allen method and is as follows:—(1) One no. 1 HMC tablet one hour before the operation to be given hyperdermatically. (2) Repeat this injection in one-half strength 15 minutes before the operation if the patient has shown no untoward symptoms from the first injection. (3) The local anesthetic used is a 5 per cent. solution of novocain with adrenalin (1-1000) 10 drops to the ounce. (4) Inject with a needle 2 inches in length a small amount at

the upper angle of the proposed incision. (5) Push the needle forward and down to the deep fascia, puncture it and inject one-half an ounce of the solution beneath it. (6) Inject and incise the skin between these two points. (7) Inject one-half an ounce in the fundus of the bladder. Do not penetrate deeper than the sub-mucosa as the fluid would then be lost in the bladder cavity. Open bladder in three minutes. (8) Inject in three points about the internal meatus of the bladder, using a longer needle. (9) Inject lateral walls of the urethra for three-fourths of an inch. (10) Inject two ounces superiorly, inferiorly and laterally under the mucous membrane covering the prostate.

The resulting hemorrhage is very small.

J. G. SPACKMAN.

THE WASSERMANN REACTION IN OPHTHALMIC PRACTICE. A RECORD OF TWO HUNDRED AND FORTY CASES.—The authors lay stress on the well recognized fact that the positive results of the Wassermann reaction are of great value. The conclusions to be drawn from negative results are less definite since, in the tertiary and latent stages of syphilis, only seventy-five per cent. and fifty per cent., respectively, yield a positive result. In interstitial keratitis, the reaction was positive in 88.8 per cent. In strumous keratitis, the results were negative in all. In iritis and iridocyclitis, these cases were obtained in the series; twenty-two in the first group gave twelve positive and ten negative results. In the second group of twenty-eight cases, fifteen were positive, twelve negative and one doubtful. Three cases of cyclitis, uncomplicated, were negative. In choroiditis, of twenty-six cases, five gave positive and twenty negative results while one was doubtful. Four cases of sympathetic ophthalmitis gave negative results as also did three cases of retinitis pigmentosa. Five cases of retinal detachment gave negative results. Inflammation of the optic nerve and retina, only five positive cases were obtained out of a total of fourteen. In optic atrophy of twenty-one cases, fifty-seven per cent. gave positive results and it is interesting to note that ten diagnosed as primary optic atrophy were all positive. The thirteen cases of paralysis of the ocular muscles gave seven positive results of which four were in paralysis of the third nerve. All six negative results were in paralysis of the sixth nerve.

Six cases of myopia with choroiditis were examined and two gave a positive reaction. Four cases of glaucoma were examined with one positive result. It is interesting to note that out of the total number of cases of various diseases examined, fifty per cent. gave a positive reaction.—Mauson, William Hyslop, Mackie, Thomas J. and Smith, H. Edgar.—*British Medical Journal*.

WM. SPENCER, M. D.

THE SCOTOMA OF MIGRAINE.—The writer states it is always interesting to show that some pathologic phenomenon is explained by some simple disturbance of a physiologic process. Eldridge—Green has shown that the foveal region of the retina which contains only cones is sensitized from the peripheral portions containing rods, and describes how this can be illustrated by directing the eyes toward a white ceiling on awakening in the morning, when the central portion of vision appears as a black spot, and light appears to invade this spot from without inward. On closing

the eye again a bluish violet circle appears at the periphery or middle of the field of vision, contracts, and then after breaking up into a star-shaped figure and becoming brighter, disappears, to be followed by another contracting circle. If the eye be opened when the star figure has formed in the center, it will appear as a bright rose colored star, much brighter than any other part of the field of vision. If, however, we wait until the star has broken up and disappeared before opening the eye, it will be found that only a black spot is seen in the center.

Eldridge—Green regards these circles as due to the circulation of photochemic fluid sensitized by the visual purple over the ends of the cones. It will be seen, therefore, that if there be any disturbance of the circulation of the eye, so that this flow of photochemic fluid to the fovea be interrupted we should have a central scotoma increasing from within outwards. This is the phenomena which is experienced in migraine.—F. W. Eldridge—Green. *Annals of Ophthal.*

WM. SPENCER, M. D.

A METHOD OF ARTIFICIAL MATURATION OF CATARACT ALLOWING OF EARLY EXTRACTION.—The pupil is dilated with atropin for one or two days before the operation. A paracentesis of the anterior chamber is made by an iris knife at the outer side. The aqueous is allowed to escape; an iris repositior is passed into the anterior chamber; the massage is applied directly to the lens capsule by it, taking care however, that the capsule itself is not ruptured. Some twenty strokings of the lens capsule are made. After this, further massage is made with the smooth lens scoop applied to the outer surface of the cornea. The movements are made in a rapid way radially from the center and backwards. One drop of atropine is instilled and a bandage applied. During the same day, atropine solution is instilled again once, twice or three times according to the size of the pupil and, if the next morning, the eye is perfectly quiet no further atropin need be used.

Very commonly, within two or three days, definite opacification of the cortical layers of the lens is observable and, in several cases, extraction has been proceeded with on the seventh day after the first operation. Extraction should not be resorted to however, unless the pupil has recovered its mobility and is again of the ordinary size and unless there are absolutely no signs of irritability, the result of the massage operation. The method allows a business man, who is becoming incapacitated for his work, to have maturation and extraction done and recovery take place within the shortest possible space of time. Under the most favorable circumstances, he need not be confined to the nursing home for three or four weeks. The advantage of having the cortical layers of the cataract opaque at the time of the extraction is obvious in that the cortex is visible and soft and thus can be more completely expressed. The less lens substance left behind the better, for it may set up iritis; and certainly a good visual result is more rapidly obtained if it is away.—Dr. J. G. Clegg.

WM. SPENCER, M. D.

LIPEMIA RETINALIS.—Two cases of reported diabetes in young people—twenty-three and twenty-five years of age. The ophthalmoscopic appearance is described and mention made of results in experimental lipemia.

Lipemia retinalis occurs in young diabetics who are usually bordering on coma and it consequently implies an immediately grave prognosis, but recovery from the condition may occur. It implies a high degree of lipemia, and it is probable that in no condition other than diabetes does lipemia attain a sufficiently high degree to give the appearance of lipemia retinalis. The conspicuous change in color and appearance of the retinal vessels is probably entirely dependent upon the opacity of the plasma, and does not indicate a change in the hemoglobin.

Lipemia retinalis supplies so striking and characteristic an ophthalmoscopic picture that it cannot be overlooked nor mistaken for any other condition.—Dr. R. F. Moore, *Annals of Ophthalm.*

WM. SPENCER, M. D.

LESION IN UPPER PORTION OF CUNEUS.—The author exhibited a set of visual charts of a rather unique case. He also showed X-Ray pictures of the case. Patient was chief of Police in one of the cities in the state who, while performing his duty was held up and shot in the right occipital region, the bullet passing backward and upward and a little downward toward the right side. He was picked up unconscious and taken to the hospital but nothing was done for him. He remained in a hebetic condition for several weeks until he recovered sufficiently to get about. Patient was then sent to Dr. Suker for consultation. There was a distinct shadow around about the impact of the bullet, part of it pressing upon the inner table of the cranium and the other part outside of the skull. The fields disclosed homonymous symmetric quadrangular hemiamopsia to a degree. There were scotoma in the left eye, but not very definite. This placed the lesion as far as he could determine in the cuneus and conformed to the exact lineation of the retinal fibres in their occipital endings as outlined by Schafer and Sanger Brown years ago. The lesion, he thought, must be in the upper portion of the cuneus, because the quadrangular fields were limited. The X-Ray findings and shadows of the brain corresponded to about the location of the cuneus, and the man was recovering fairly well although nothing had been done because the bullet was not within the brain and the oedema present was most likely due to a hemorrhage by contre coup. He thought it would be useless to do any trephining or decompression operation.

This was the consensus of opinion of the other men who saw the case with him. A very peculiar symptom was that when the patient looked down and turned his head toward the right and struck the blind field, he immediately had vertigo. He had the sensation of falling over a precipice, but as soon as he swung the eyes around the symptom disappeared. He had $\frac{20}{20}$ vision, was presbyopic, with 4 to 40. There was no hyperemia of the disc or engorgement indicating the line of pressure along the optic nerve, either by choked disc or neuroretinitis. According to the literature, there were only fifteen to twenty cases of such quadrangular fields on record.—Dr. George F. Suker. *Annals of Ophthalmology.*

WM. SPENCER, M. D.

ACUTE (BACILLUS TULARENSE) CONJUNCTIVITIS.—Patient, woman of forty-three years, complained of a very irritable left eye. She was nervous,

excitable, loquacious and mildly delirious. Marked swelling in front of the left ear. Oedema of the upper lid. Conjunctiva of the bulb slightly chemotic, and transversed by thin, translucent, corrugated, sausage-like tubes or lines. Cornea clear. Irregularly scattered in the conjunctiva were small points of infiltration about the size of a split pea, resembling pustules which had ruptured and had been converted into shallow ulcers. The discharge was watery and straw colored. Temperature 104 degrees. Constitutional symptoms very severe. Glandular enlargement; excessive prostration, profuse chills and malaria. Excessive swelling in the neck. Slow recovery with disappearance of the ocular symptoms. On the ocular conjunctiva was a distinct caseated node in the course of a dilated lymph channel. Following its removal an immediate reenactment of the same diseased process again took place within twelve hours. In two weeks it subsided. The case is similar to that reported by Vail from which Wherry isolated the bacillus tularensis. In the present case an animal inoculated with some of the material died in six days, and dissection showed lesions resembling those of the bacillus tularensis and organisms resembling this bacillus were found.—Dr. Robert Sattler—*Archives of Ophthalm.*

WM. SPENCER, M. D.

DOUBLE CHANCRE OF THE EYELIDS.—Patient, a female forty years old, a worker in a tobacco factory, sowed a large round ulcer at the external canthus of the left eye. The floor of the ulcer was necrotic. A similar ulceration was present at the inner canthus. There was a small round nodule of infiltration on the margin of the lower lid between the two ulcers and considerable edema of both lids and conjunctiva. Preauricular and submaxillary glands enlarged. There were no mucous patches in the mouth or throat, and no secondary manifestations. The first tests for spirochetes were negative, as was the first Wassermann. Later both were positive. Mucous patches then appeared. Under treatment the ulceration soon cleared up. Finlay goes on to describe the characteristic chancres of the eyelid and the methods of infection. In the factory in which the patient worked one hundred to two hundred women at the end of each day washed their hands and faces in the same basins and dried with the same towel, which custom was undoubtedly responsible for her affection. The writer has found eight other cases of double chancre in the literature and one of triple chancre.—Dr. C. E. Finlay, *Archives of Ophthalmology.*

WM. SPENCER, M. D.

REACTION OF THE PUPIL, STRONGLY SUGGESTIVE OF ARTERIOSCLEROSIS WITH INCREASED BLOOD PRESSURE.—The authors have for six years observed a condition of the pupil which seemed always to be associated with patients registering a high blood pressure. The pupil is found to be larger than the average normal pupil, with a usual minimum size of four and a half to five millimeters in width. It contracts promptly to light stimulus, but immediately returns to the original size, and there remains without the light stimulus having been changed. While it is not claimed that this reaction is pathognomonic, its association with arteriosclerosis with high blood pressure is so nearly constant as to make of it a sign that is at least strongly suggestive and therefore of undoubted clinical value. A few

selected cases are reported "from several hundred observations."—Weiner, Meyer and H. L. Walfner. *Annals of Ophthalmology*.

WM. SPENCER, M. D.

CARIOUS TEETH AS A FACTOR IN OCULAR DISEASE.—Practically all vegetable and mineral poisons having a baneful influence upon the eye attack the optic nerve and retina, while endogenous and bacterial toxins affect primarily the uveal tract. Broadly speaking, the first named toxic agents might be termed inorganic, and the latter group may be called organic. Affections of the vision incident to disease of the uveal tract suggest the presence of a metabolic toxin of albuminous origin, either endogenous, enterogenous or focal.

Three cases are cited to illustrate the author's contention that dental caries is an important factor in the cause of uveitis. Case 1. Left eye—Vision $\frac{20}{120}$, field normal; large vitreous opacities which precluded detailed view of the fundus. The nose and sinuses were normal, but the "mouth was in a filthy condition," showing leucoplakia buccalis, and the teeth were in all shapes of decay. The patient had the bad teeth extracted, the small cavities repaired and the teeth thoroughly cleaned. During this time she was using dionin 5 per cent, and taking potassium iodid. Thirty days later the mouth was in much better shape and the vision normal. The ophthalmoscope revealed no evidence of vitreous opacities or cloudiness.

Case 2—Patient had until recently a mouth full of "foul aching stumps and abscessed roots." The right eye was closed by an acute blepharorrhea of the lacrimal sac. Ophthalmoscopic examination revealed large floating opacities which completely obscured the fundus. There were also punctate deposits on the posterior lens capsule and Descemet's membrane in both eyes, more especially in the right eye. Vision was $\frac{20}{200}$ in each eye. Surgical treatment of the lacrimal sac and the dental troubles, and the administration of calomel and potassium iodid for one month brought the vision in the right eye up to $\frac{20}{100}$. Correction with lenses brought the vision up to $\frac{20}{50}$. Two weeks later there was further clearing of the media and the vision with the proper correction was $\frac{20}{40}$. The patient is still under treatment.

Case 3—Vision, right eye—counts fingers at ten inches only in inferior temporal quadrant. Pupil sluggish; numerous punctate deposits on Descemet's membrane. Vitreous so turbid as to almost obscure the fundus. In left eye vision was $\frac{20}{40}$, and could be improved with lenses to almost normal. Several large stationary vitreous opacities and some stippling on the posterior corneal surface. The patient had four molar root abscesses. These teeth were extracted and the abscesses cured. One month after first examination the vision in the right eye was $\frac{20}{100}$, improved to $\frac{20}{50}$ with lenses. The fundus was dimly visible. The left eye showed almost complete absence of opacities, and the vision was normal.—Dr. A. E. Ibershoff—*Jour. of Ophthal., Otology and Laryngology*.

WM. SPENCER, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY DR. DONALD MACFARLAN
PHILADELPHIA

DATA LEFT BY THE LATE DR. CONSTANTINE HERING. (posthumous material furnished by a relative.)

ARSENICUM IN INTERMITTENT FEVERS.—“Arsenic is one of the most prominent agents of cure against intermittents. When the chills and fever are not distinctly developed, when they alternate, or commingle with each other; also, when the heat is burning, likewise disagreeable to the touch, and attended by great agitation, and almost inextinguishable thirst, arsenic will exhibit its remedial efficiency. Arsenic demands a preference over all other remedies when the fever presents a form peculiarly characteristic of this remedy; for example, when the pains or accidental symptoms are already existing, but feebly developed, augment at the accession of the fever, or when they first appear, and are succeeded by and unite with the fever, or when the fever is accompanied by symptoms which do not appertain to it, as lively anxiety, buzzing in the ears, twitching in the limbs, and etc. Arsenic is not less efficient in those fevers where, immediately after the chill, an inclination to vomit, or a bitter taste in the mouth is observed; when the taste of aliments and drink is extinguished, without a constant continuance of a bitter or disagreeable taste in the mouth, which will not again develop itself for some time, except while eating, or shortly after; where vertigo, nausea, trembling and sudden prostration of strength are manifested to the highest extent; where patient drinks very frequently, but very little at a time; where perspiration does not supervene for some time after the heat; and where sensation and motion is impaired, attended with insupportable pains and the highest degree of anxiety.”

HARTMANN.

ECHINACEA IN RATTLESNAKE BITE.—“During my short career in the practice of medicine, I have had the opportunity of treating two cases of rattlesnake bite, which I will report in detail.

Case 1. Boy, seven years old, bitten three inches above the heel; the bite was complete, both upper and lower fangs entering the flesh. There is no doubt about it being a rattlesnake, as snake was killed and produced for my inspection. I saw the boy in about one hour after he had been bitten. The leg was badly swollen for about three inches each way from bite. The boy had been given about four ounces of whiskey. Some claim that when whiskey is once given it should be kept up; but I wanted to see

what echinacea would do, so I discontinued the whiskey and gave echinacea internally in twenty-drop doses, every fifteen minutes until four doses were given, then every hour. At the same time I applied the echinacea locally by saturating cotton with it and covering the entire swollen area. Result: in three days the boy was able to put on his shoe and walk one-fourth of a mile to school without limping.

Case 2. A lady, twenty-one years old, was brought to my office. She had been bitten on the back of the hand by a rattlesnake. Both upper and lower fangs had penetrated the integument. I saw her about one hour after she had been bitten. The hand was badly swollen and had turned dark purple. I gave echinacea internally in thirty-drop doses every fifteen minutes until four doses were taken, then every hour, and applied it locally. Result: in four days she was able to do her housework. Nothing but echinacea was used internally or externally in this case.

In each case the swelling stopped as soon as the echinacea was used, and in about twelve hours commenced to subside. There was but very little pain in either case. There are numbers of rattlesnakes in this part of the country, and if I get a chance to treat any more cases I will report my success with echinacea. I have used echinacea in a number of cases of typhoid fever, recurring boils, and in fact in almost all kinds of cases where there is a septic condition of the blood, with the most gratifying results.

J. MORROW, M.D.

ABSINTHIUM.—Our knowledge of the effects of this remarkable plant is derived wholly from cases of poisoning; even Dr. Gatchell's "provings" contain "epileptiform convulsions," which can have been noticed only in a chronic poisoning. To understand rightly what we are studying, let us examine the preparations ordinarily used. *There is no pure "liquor of absinthe" in the market; all the essences and liquors are adulterated. Formerly Swiss absinthe (the best) was prepared by macerating in alcohol the tops of artemisia absinthium and other species, together with angelica root, sweet flag root, aniseed, dittany, origanum, and etc.; after distillation there were added: essences of aniseed, or of mint, fennel and honey.*

At the present time no infusions are made. Essences are first prepared and added to a poor alcohol; for a fine color, *sulphate of indigo, tincture of curcuma, picric acid, sulphate of copper* and even *arsenate of copper*, are added. Still, this adulteration does not alter the fact that absinthe, pure and simple, produces a genuine and peculiar intoxication, *the chronic form of which is characterised by epileptiform convulsions.* Dr. Challaud, in "Etude Experimentale et Clinique sur l'Absinthisme et l'Alcoholisme," gives the following conclusions:—

(1.) The poisonous agent in "liquor d'absinth" is the essence of absinth; this essence alone, without alcohol or any adulteration, produces in animals an intoxication characterised by epilepsy.

(2.) In man, the abuse of this liquor is followed by convulsions.

(3.) This epilepsy of absinthe differs from the epileptiform spasms noticed in chronic alcoholism, by its *character*, by the period of *invasion*, and by its *duration*.

We have now to examine the peculiarities of the absinthe epilepsy.

We first find that the spasms are characterised by *a large number occurring in rapid succession*. This observation has proven of service in arresting these spasms by dilutions of absinthe. Another good observation is the *anaesthesias and symptoms of general paralysis* following or even preceding the convulsions. Note also the *terrifying hallucinations* in many cases.

A number of drugs produce spasms with loss of consciousness, and many drugs arrest such spasms and cure even epilepsy; but none are like *absinthe*. *Cicuta* approaches it in severity, but the spasms indicating *cicuta* are continuous; while the intermitting spasms of *nux vomica* are not attended with loss of consciousness, and are more tetanic in character. The symptoms of anesthesia and general paralysis are clearly brought out by the most valuable provings of *artemesia abrotanum* by Dr. Cushing. The same bitter, active principle is found in nearly every species of *artemesia*. It was described by Kromaayer and named *absinthin*. It is not an alkaloid. According to von Leonhardi it causes vertigo and stupefaction. The provings of Dr. Cushing well repay the most careful study. The preparation used was obtained by macerating the fresh plant in alcohol. The doctor began with six drops of the tincture and rose to a hundred. He first experienced a sensation "as if the head were squeezed in the temporal regions;" afterwards there following frightful dreams, and trembling on waking. After sixty drops, a humming as of a bee was heard; then he had lameness and aching in the left arm; then severe pains in the back of the neck, shoulders, and etc.; the right hip became lame; the arms and hands became numb; afterwards trembling all over; *mouth became dry and sore; respiration difficult; legs so lame that it was difficult to walk; restless on account of the pains; darting pains in various parts of the body; when driving, he often unconsciously dropped the reins.*

Provings of the same plant by Dr. Gatchell give us; fugitive pains; numb sensation in fingers; loss of mental power, and etc. These provings are clearly *genuine* and valuable. A condition similar to this is not infrequently met with in patients and absinthe or absinthium abrotanum should come in frequent use for cerebral and spinal hyperemia with the symptoms so clearly developed by Dr. Cushing. The amelioration from motion, the numbness and the pains, are like *rhhus*. Both Cushing and Gatchell speak of the pains as fugitive: Cushing noticed the upper left, then lower right. The study of the *artemesias* should be followed by a comparison with *rhhus* and *zincum*. *Cimicifuga* and a large number of cognate drugs will readily suggest themselves.—*Posthumous material* (Adolphus von Lippe.)

THE HAHNEMANNIAN MONTHLY.

MAY, 1916

HAY FEVER---ITS TREATMENT AND CURE BY DESENSITIZATION OF THE NASAL MUCOSA.

BY

WM. M. HILLEGAS, M. D.

(Read before the Philadelphia Society for Clinical Research).

THE amount of work done recently by many observers in attempting to establish immunity in the treatment of Hay Fever led me to investigate and compare their experiments and the resulting data, not by laboratory tests, nor experiments on human beings, but rather critically.

In the HAHNEMANNIAN MONTHLY, August, 1908, and again in July, 1913, are articles by me on this subject, and I shall not hesitate to quote freely from them, also from Sajous, Dunbar and others who have studied this disease entity extensively.

Dr. Laidlaw, the renowned New York clinician, at a recent meeting at Atlantic City, said that it will be necessary to more closely correlate bacteriology and physiology, as well as pathology if we want to *prove* the cause and effect of many so-called bacterial diseased conditions and get absolutely uniform beneficial results from treatment based on such premises. So in hay fever, when we can *prove* that a trilogy of causes must all be present for an attack to occur, immunity can only be obtained by the permanent removal of one of these three causes. Vaccine therapy aims to remove the idiosyncrasy, the susceptibility, the least understood of the three causative factors; desensitization aims to remove an easily provable factor, the hyperaesthesia of the nasal mucosa.

The writer makes no claim of priority for the treatment of hay fever by desensitizing the nasal mucosa with an electro-cautery; it was first suggested by Dr. Charles E. Sajous in a monograph printed in 1885, and is mentioned by various writers since, but was not followed up actively. Beginning in 1905 the use of the method of treatment outlined later in this article, I feel that now that this treatment has been followed by so many cases of permanent cure, we are justified in regarding it as the best treatment so far advanced for hay fever; although by no means claiming that it will cure every case.

As for nomenclature, the term Hay Fever is misleading, and its division into Spring Catarrh and Autumnal Catarrh is rather arbitrary. Amongst the many names suggested those of Pollinosis and Vasomotor Rhinitis best express the conception of the disease, others such as Rose cold, Nervous coryza, June cold—are objectionable, being neither comprehensive nor scientific. I prefer Sajous' term—Hyperaesthetic Rhinitis, though most writers reserve that term for those cases which occur at any and all seasons of the year and which are not necessarily dependent on pollen irritation.

Bostock in 1819 was the first to call attention to this condition as an entity, and Blakely in 1873 first discovered by experiments the causal relationship of pollen to hay fever, although as early as 1839 Elliotson pointed to pollen as the probable cause. Dunbar of Germany published in 1903 the results of an exhaustive series of experiments with the pollen of various grasses, rye, grains and flowers, naming 54 plants of the gramineae and the compositae families as having irritating pollen. His experiments proved that all hay fever patients were affected by putting the plant dust in their eyes or nose, and that symptoms were produced only in those susceptible individuals, others not being affected by the irritation; he also was sure *then* that immunity can not be produced.

Experiments in the production of immunity have been numerous, especially in this country; Koessler, Manning, Goodale, Oppenheimer, Gottlieb, Ulrich, Lowdermilk, have been particularly active, but no conclusive results have been obtained. And the search for a germ as the cause has been just as fruitless of result. *Hay Fever is caused by the action of pollen grains from flowering plants on hyperaesthetic nasal mucosae.*

Sajous calls Hay Fever "a superficial organic alteration of

the nasal mucosa," and defines it as "an affection characterized by periodical attacks of acute rhinitis, with sneezing as the most prominent symptom, complicated sometimes with asthma; occurring as a result of a special susceptibility on the part of certain individuals to become influenced by certain substances owing to a deranged state of the nerve centres. It manifests itself only provided the mucous membrane primarily affected in the course of an attack is in a state of hyperaesthesia, and when the irritating substances (pollen) are present in the atmosphere."

By Hay Fever is meant the following entity—premonitory symptoms of itching in the roof of the mouth and the eyes, lachrymation, fulness in the nostrils, discomfort in nasal breathing. These last for a week or more, at times only for a few hours, and are followed by sneezing, which is usually paroxysmal and often becomes violent; turgescence of the lining mucosa of the nose with profuse watery discharge; the eye symptoms increase, conjunctivitis frequently develops; breathing becomes impeded, and ichorous nasal discharge ensues. This lasts for six weeks or more. As for complications, asthma is the most frequent and distressing one; it usually does not start with the onset of the sneezing, but later when the turgescence is marked, and is generally reflex, due to swelling of the posterior end of the lower turbinates, and often continues even after the sneezing has subsided. However, some asthmatic attacks which occur late in hay fever are due to direct bacterial extension of the catarrhal mucus down the respiratory tract. Frontal headache, tinnitus, anorexia, urticaria, disturbed digestion, insomnia, loss of smell, severe nervous depression are very apt to occur as complicating conditions. Perhaps the most marked peculiarity of hay fever is the time of its onset, August 12th to 18th, in many cases the day and even the hour of the expected attack can be foretold accurately by the patient, thus suggesting a marked psychic element. The following case I think disproves any contention that psychic causes can be an *absolute* factor; a man who for 14 years has begun to sneeze without any premonitory symptoms at 6 A. M. on August 14th, failed to do so under preliminary treatment last year. Two weeks later, while on a railroad journey, with the windows open, he began to sneeze, and had a great deal of discomfort, and discovered ragweed in the adjacent fields; this discomfort passed away as soon as

he reached his journey's end, in the mountains. Of course the middle of August is incident to the ragweed and goldenrod blossoming. Rose fever appears in June, at the time of timothy grass and roses, and its exact date of onset is not as marked as in the autumnal variety, or true hay fever.

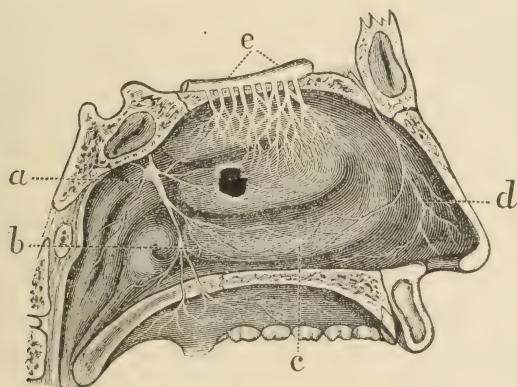
It would be a sheer waste of time and space to attempt a complete historical résumé of the many causes assigned to hay fever. Some few however are worthy of investigation. Dunbar insists on the specificity of the disease, denies any other possible cause than pollen, and also denies hereditary predisposition. Bishop very strongly supports the uric acid diathesis as the cause, as do many others. Grayson believes that intestinal toxemia is the cause of many cases. Braden Kyle says "that pollen diseases are not caused by local nasal lesions, but by pollen as an exciting cause and by an idiosyncratic predisposition," and he recently advanced the theory that the local irritation was caused in many instances by chemical changes in the secretion of the nasal mucous glands, hyperacidity. Schadle, of St. Paul, first called attention to the possible relationship between hay fever and diseased accessory sinuses, especially the maxillary sinus; and Ballenger believed that the irritation caused by the more or less constant discharge from diseased sinuses is a very common cause of hay fever. Karl Koessler, of Chicago, who in 1910 made the first attempts to establish active immunity to hay fever said that "pollen protein acts because there is an interference with the normal nasal secretion, interfering with its normal proteolytic enzymic action on protein molecules, there then occurring a parenteral intake of foreign (pollen) protein." And some observers believe it possible that hay fever may be caused in all cases by such parenteral sensitization through abraded surfaces in the nasal mucosa; but were this so, how account for the cases occurring in extremely young children?

There is no doubt of a hereditary predisposition to hay fever, quite unexplainable. Severe whooping cough in childhood seems to favor the development of hay fever later. Hay fever is rare in children, although I have seen it in a child of 18 months, and have a record of a case that started at the age of nine months; it occurs most frequently between the ages of 20 and 40 years, and about three times as often in men as in women. It is found much more frequently amongst people of education than in the laboring class, and especially

in tea drinking nations; is very prevalent in North America, is found in England, France and Germany, and is almost unknown in the Arctic regions. It is seldom found in negroes; and sufferers from hay fever rarely develop tuberculosis. It is far more prevalent in cities than in the country, and this despite the fact of the far larger quantity of irritating pollen in the country. The neurotic element, life at high tension, can be readily traced.

Three distinct factors are necessary for an attack of Hay Fever.

First—Constitutional-or-Neurotic:—A neurosis of the brain cells in the neighborhood that controls the sphenopalatine ganglion and the nasal branches of the ophthalmic (fifth



a, Sphenopalatine ganglion; *b*, posterior area, *c*, middle area, *d*, anterior area; *e*, olfactory bulb.

cranial) nerve; this neurosis is one of adynamia (weakness) and may be due to uricacidosis, intestinal toxemia, or it may be a true neurosis, hereditary or acquired.

Second—Local morbid changes in the nose or the accessory sinuses producing hyperaesthesia of the membrane lining the nose.

Third—The presence in the air of irritating substances—an external irritant—the pollen of certain plants.

Both systemic and local elements must exist simultaneously to render an attack possible. However there must be an exciting cause and that has been proven by Dunbar to be a toxalbumin found in the pollen of various plants, flowers and grasses—*without pollen—no Hay Fever*.

In examining a case of hay fever, the nasal membranes will

be found to be swollen, but rather pale and flabby; this pallor being more pronounced after repeated attacks, and is significant of the adynamia; hyperemic membranes are rarely found in true hay fever. If a dull pointed probe is passed lightly over the mucosa, sensitive spots will be found, the result being an attack of sneezing. There are three sensitive areas—the posterior end of the lower turbinates, the middle of the lower turbinate and the corresponding opposite part of the septum; the lower half of the middle turbinates, and the septum above the tubercle; and on the nasal wall near the angle forming the outer boundary of the vestibule. The olfactory membrane, the upper third of the middle turbinate is not sensitive. The posterior end of the lower turbinate is the area most affected in cases of hay fever asthma. These sensitive areas are at the terminal ends of the fibres of the nasal branches of the ophthalmic nerve and the sphenopalatine ganglion.

Other contiguous spots are not sensitive, and the same sneezing in a less marked degree may be induced at any time of the year in most cases of hay fever by touching these sensitive spots.

Pathology:—Turgescence caused by the vasomotor nerves of the sympathetic system; sensitiveness caused by the terminal filaments of the sensory nerves, especially the sphenopalatine ganglion, which enter the back part of the nose through the sphenopalatine foramen. Besides its motor and sensory roots the sphenopalatine ganglion possesses a sympathetic root which forms a well defined link connecting the mucous membrane and the sympathetic system; also demonstrating the reflex character of most of the hay fever asthmatic attacks, through the posterior pulmonary plexus and the pneumogastric.

The method of production of a paroxysm is as follows:—a certain irritant coming in contact with the hyperaesthetic mucous membrane, in a neurasthenic susceptible person, the impression made on the terminal nerve fibrillae is transmitted through the ganglia and returned to the vasomotor nerves of the membrane with a resulting vasomotor catarrh.

Treatment naturally divides itself into preventive and curative, and the sedative treatment of attacks. Given the trilogy of factors as before mentioned as all necessary for an attack of hay fever—if any one of them can be removed the patient

will not have hay fever that year, and if removed permanently the patient is cured.

It is easiest to get away from the pollen, so the climatic treatment by removal to a section free from pollen will prevent the attack. Such places as the Adirondack Mountains, White Mountains, Muskoka Lakes in Canada, some lakes in northern Michigan, and some parts of the seacoast are especially free from pollen, and very popular with hay fever sufferers.

Constitutional treatment consists of hygienic measures such as exercise in the open air, cold sponge baths, removal of constipation, diet and treatment for acidosis if present, tonic treatment to improve the adynamia and the neurotic element by general remedies not especially prescribed for the hay fever.

Local Treatment:—Careful and thorough attention must be given to the nasal passages if any success is to be expected. It is true that many people with marked abnormality in the nose do not have hay fever, and that hay fever attacks people with apparently normal nostrils, still if there are irregularities in the nose it is impossible to cure hay fever by any method of treatment. Nasal catarrh should be cleared up, on account of the alteration in the secretions; polypi removed, and usually with them the anterior end of the middle turbinate to give free drainage to any attending sinus disease, deviations of the septum corrected and septal spurs removed, and this is especially important if there is contact between the septum and a turbinate; sinusitis, either catarrhal or suppurative in type, must be treated and operated radically if necessary, and this is very important; Argyrol tamponade treatment is of distinct value here. Get the nasal passages as nearly normal as is possible before instituting other treatment; I want to lay particular stress on the absolute necessity of these measures, or the treatment by desensitization of the nasal mucosa can only partially relieve, and never cure.

The Homeopathic remedies that I have found of most benefit have been Naphthaline, Allium Cepa; Ars. alb.; Euphrasia; Causticum. Patients permitting, I believe that constitutional treatment with potentized Homeopathic remedies for months preceding the expected attack would eventually bring about favorable results, but most hay fever patients are sceptics as to the efficacy of *any* treatment, and when they *do*

submit to treatment, or apply for relief, they want you to *do something*.

Powdered sulphate of quinine insufflated in the nostrils has helped some cases. The insufflation of a thorough triturate of calomel 1 dr. to the ounce of boric acid is recommended. An oily solution of Menthol 2 per cent., or Pineoleum is very soothing. Cocaine is very useful in office treatment as it gives rapid relief to the turgescence, but its secondary effect of vasomotor paralysis causes dilatation of the blood vessels, hyperaemia and more marked turgescence. Never let a patient have it for home use as there is grave danger of forming the cocaine habit. Catarrh snuffs and patent hay fever cures unfortunately are full of cocaine, but this evil is lessened under the provisions of the Harrison narcotic law. Adrenalin is used for its action as a powerful constrictor of the capillary blood vessels, in this respect resembling cocaine in reducing the hyperemic swelling, but it lacks the unpleasant secondary action, and can be used freely either in full strength or in one third strength, and as an oily solution at home by the patient. The following is soothing and reducing, used in a vaporizer—Adrenalin Chloride sol. gtts. 20, Pineoleum, oz. 1. The asthma of hay fever is especially benefitted by the use of cocaine applied locally in the nostrils, and under careful supervision it can be used at night at home in a 2 per cent. solution. Atropia sulph. 1-150 gr. will generally give temporary relief, and to this may be added Morph. sulph. 1-16 gr.

Thorough local use of the suprarenal solutions gives the most relief locally, and should also be used freely in the eyes for the complicating conjunctivitis. Dark glasses are of decided benefit, and if a correction is worn, it should be ground in violet tinted or dark lenses for constant wear during the attack. Railroad journeys should be avoided during the attack, on account of the dust which contains more pollen than any other media.

Pollack suggests the injection of the sphenopalatine ganglion with alcohol, for hay fever and hyperaesthetic rhinitis, but this seems unjustifiable, too risky a procedure for such a minor complaint.

Dunbar, with his Pollantin, a serum antitoxin, was the first to try to establish passive immunity; this preparation could not be used hypodermically, and was to be applied locally as

a powder or ointment to the membranes of the nose and eyes; it is not much used at present. More active immunity has been sought by later experimenters, and the extracts prepared from pollen in the form of vaccines have been used hypodermically. Manning, of Omaha, made a valiant but ineffectual effort to establish an infectious etiology.

Goodale, of Boston, in studying the biological relations between hay fever and different plants, obtained the extract from pollen by soaking in water for a few hours and adding 15 per cent. by volume of alcohol for preservation. He used these extracts by skin reactions to test sensitization. In making these tests, the skin is merely scratched, and a little of the extract rubbed on gently, if a positive reaction is obtained a local white circumscribed area appears in from 5 to 15 minutes. Oppenheimer and Gottlieb in New York published about the same time in 1915 the results of a similar series of experiments with various pollen. They attempt to determine the special irritating pollen in each case by trying one extract after another until a positive reaction is obtained, then evolving a curative vaccine (antigen).

The plants whose pollen extracts showed positive reactions were practically the same as those reported in 1903 by Dunbar, principally those of the Graminae family, as especially represented by timothy grass, and the Compositae family as especially represented by ragweed and goldenrod. By far the largest number of positive reactions were to the extracts of the pollen of goldenrod and ragweed, also to tansy, daisy, yarrow, coltsfoot, cosmos, dandelion. A source of error is to be found in that one patient may react positively to several pollen extracts, especially of the same family of plants, so causing confusion in the choice of vaccine to be used, or compelling the use of a mixed or multi-pollen vaccine. The time required to experimentally determine the variety of pollen which is irritating in each case and then giving 15 to 30 injections of the curative vaccines, as advised by these observers, takes too much time for most patients. It must also be borne in mind that the parenteral entrance into the body of pollen protein through these tests, may cause by sensitization a condition of anaphylaxis: indeed, anaphylactic shock has been so caused.

All workers in this form of vaccine therapy begin this form of treatment with small doses, and gradually increase the dose, similar to the method used in tuberculin treatment, the initial

dose being 1 to 1,000,000, and they caution against producing anaphylactic shock by too large doses. These observers report varying percentages of relief and prevention of attacks.

Pollen vaccine therapy may be regarded at the present time as a promising method of treatment, but its value and the permanence of its results remains still to be definitely established; results so far obtained by various observers are not conclusive.

Probably the lack of uniform success in vaccine therapy in the treatment of hay fever and the failure to produce immunity are due to the fact that hay fever has not a single isolated cause: it is not a germ disease, and its incidence follows many apparent causes, some are true pollinosis, others by no means can be so considered. If the case is one of true pollinosis, vaccine therapy properly administered should cure. The following case is an unusual one in that such a clear history of pollen infection is rarely obtained. Male, age 48 years. Twenty-one years ago while walking through a meadow he was switching off with a cane the tops of flowers and plants, amongst which was a lot of ragweed; next day he had a severe attack of sneezing and has had hay fever ever since. He has had his tonsils enucleated, but still has repeated severe attacks of peritonsillar abscesses. His nasal passages are normal, except for the hyperaesthesia, and he is of rather a neurotic temperament. All internal remedies failed: desensitization treatment failed to give any relief, given in two successive years, both preceding and during the attacks. His case presents severe sneezing, with but moderate turgescence, and no asthma, but some cough, and considerable irritation in the eyes, and his general malaise is marked. In 1915, we began on August 1st and gave 6 injections of ragweed vaccine (Mulford), and he had the lightest attack he ever had. This case should be cured eventually by more prolonged preliminary treatment with the single vaccine.

Duncan, of New York claims 100 per cent. cures of hay fever by Auto-therapy. Autogenous serums seem to have been a failure (Weeks) perhaps due to the difficulty of obtaining pure cultures from the nasal fossae, they are apt to be contaminated from the nasal vestibule or its hairs.

The practitioners of the various methods of treatment by spinal or other manipulation have made extravagant claims for cure in hay fever, but these have not been substantiated,

although there are many cases of undoubted relief through improvement of the neurosis by stimulation of the sympathetic nerves. The writer has had quite a number of cases which have had steady treatment by chiropractors without any relief, but can not speak personally about osteopathy.

It is rather difficult to determine exactly what should be designated as a cure. Many years ago a great medical philosopher who was a pessimist as regards treatment gave as an aphorism "Nothing ever gets completely well." It is true that there are but few diseased conditions or processes which do not leave their impress on the organism in some chemical, anatomic or functional alteration. Charlatans call all relief cures—and tell the public so—we must keep pace, or lose prestige and practice. What is a cure in Hay Fever? If a patient fails to have his regular attack one year it is called a cure, I go further, and say that *future* attacks in most cases can be *prevented* by Desensitization treatment.

Bearing in mind the earlier statement that three factors *must* be present for an attack of hay fever, i. e.—susceptibility—external irritant (pollen)—hyperaesthesia; it naturally follows as Gleason says that the "absence of any one of these three factors is sufficient to prevent an attack," therefore removing any one of them will prevent the attack for that year, and permanent removal will cure. Climatic removal will eliminate the factor of the irritating pollen during the time of absence: vaccine therapy aims to produce immunity, or at least to mitigate the attacks by removing the susceptibility; desensitization cures by removing the hyperaesthesia, and this *hyperaesthesia* is the only *constant* symptom in *all* cases of hay fever.

The treatment of hay fever by desensitization of the nasal mucosa is mentioned by many writers, but no stress is laid upon its value since Sajous except by E. B. Gleason, of Philadelphia. Various methods of desensitizing have been used: personally I am convinced that this is best accomplished with the electro-cautery. Chromic Acid in 10 per cent. solution, and Trichloracetic Acid in 50 per cent. solution have been used by the writer. Lavage of the nasal passages with large quantities of hot water, either normal salt solution or a solution of Bicarbonate of Soda has been used during the attacks, but is exceedingly dangerous to the Eustachian tubes.

Technique—Desensitization is best accomplished by superficial cauterization of the sensitive areas in the nose, thus eliminating the reflexes, and is best done with an electro-cautery, using a thin flat dull electrode, at a low white heat. After determining in the case to be treated the most sensitive spots, cocainize thoroughly, using a 16 per cent. solution freely but carefully, introduce the electrode cold, bring to a low white heat quickly, and brush the flat surface of the electrode rather rapidly over the selected area. Treat from two to four spots at one sitting. It is well to desensitize the anterior area first as it will facilitate later treatments. Never cauterize at the same sitting two spots directly opposite each other on the turbinates and septum, and avoid entirely the olfactory membrane. Apply an emollient oil after the cauterization, and have the patient use some oil at home at frequent intervals.

To prevent an attack of hay fever these treatments must be given in advance, beginning about six weeks before the expected onset; as the attacks usually begin about August 15th, begin the treatments about July 1st; give a treatment every five days, or if the time is short every three days, but five days interval is best so as to allow all subsequent swelling to subside. There is but little if any pain, if the cocaine has been properly applied, and the cautery used at a low white heat; cherry red heat is painful, and intense white heat must be avoided, as it is apt to destroy tissue, which is undesirable. If the electrode is too thin there will be trouble with mucus dulling the heat, and so interfering with its effectiveness; if the electrode is too thick, it will retain its heat even after releasing the current, and if the patient is nervous, it may burn the nostril in the vestibule on its removal, the patient moving.

The patient may have some swelling in the nose the first day, but it is usually trifling. Care must be taken not to press too strongly with the electrode, and to avoid deep cauterization, the result to be accomplished is the deadening (desensitizing) of the terminal nerve filaments, and not the destruction of tissue, the latter being both unnecessary and useless, possibly would aggravate the condition. Far better to have to treat the same spot again later than to destroy tissue.

Criticism has been made that atrophy of the mucous membranes follows this treatment: this is not so if the work is

done carefully and with a delicate touch, properly. Since beginning this form of treatment in 1905 I have had the opportunity of following up many of my cases and examining their nasal passages, and recently I sent for some in order to examine them and disprove this criticism, and I find none of them have any nasal symptoms as a result. Nor is there any chance of interfering with the sense of smell, if care is taken not to cauterize the olfactory membrane, the upper third of the middle turbinates.

The following year the patient goes through the same course of treatment, usually quite willingly, the amount of cauterizing to be done being dependent on the number of spots still found to be sensitive. At times during the attack spots are found that require treatment, not having been thoroughly desensitized. Should bleeding occur during the cauterization, do not worry or try to control it at once, local depletion is beneficial rather than otherwise.

Last year, 1915, I combined a course of hay fever vaccines with the desensitization treatment in some of my cases, but did not feel that it added to its success.

If the patient is not seen until the onset of the attack this treatment is still of great value, given at closer intervals, two or three days apart; here it is somewhat more painful and followed by more swelling.

My records show each year an increased proportion of success, and I am now getting 65 per cent. of cures, meaning by that not merely relief but finally no attacks in following years, and no treatment necessary later; 85 per cent. of relief. Last year, 1915, 100 per cent. of relief in all cases, and by relief I mean—comfort in breathing and comparatively very little sneezing, and but little asthma.

I use Naphthaline Ix internally, and a vapor of Pineoleum and Adrenalin.

There are many cases of Hyperaesthetic Rhinitis, not due to Pollinosis, which are directly traceable to diseased hypersensitive nasal mucosa; these patients suffer from repeated attacks of sneezing at any time of the year, especially when exposed to dust, face powder, etc. The sensitiveness of the mucous membranes in these cases is not limited to the typical sensitive areas found in true hay fever, rather more spread; these cases all respond readily to treatment by superficial cauterizations.

Conclusions: (Sajous)—As a result of heredity or of diseases affecting markedly the nervous system, the nerve centres become abnormally sensitive; as a result of local disease those portions of the nasal mucosa over which the branches of the sphenopalatine ganglion and the nasal branches of the ophthalmic nerve are distributed become hypersensitive and transmit impressions made upon their surface to the nerve centres; when these two conditions coexist and when the external irritant to which the nerve centres are inordinately sensitive is present in the atmosphere, an attack of hay fever is excited; and such an attack cannot take place unless these three factors are present simultaneously. As one of these elements, the external irritant, pollen, is only present at certain times of the year, hay fever can only occur at such times. As a consequence, elimination of any one of the three factors necessary to the production of an attack will prevent its occurrence. By desensitizing the hyperaesthetic portions of the nasal mucosa by cauterization with an electro-cautery, their hyperaesthesia can be permanently removed, and the periodical attacks of Hay Fever become impossible.

My theory of Hay Fever is that it is distinctly a neurosis with an individual idiosyncrasy to pollen, associated always with chronic disease of the nasal mucosa, and that an attack is caused by the direct action of irritating pollen of flowering plants on hyperaesthetic mucous membranes.

The following points in treatment must be emphasized:—all abnormal conditions of the nasal passages must be eradicated before beginning treatment by desensitizing by superficial cauterization the sensitive spots; this treatment is productive of best results when begun at least six weeks before the expected attack of hay fever; the treatment can be given during the paroxysms, the latter being arrested in some, relieved or modified in others; *immunity* against future attacks of hay fever depends upon the thoroughness with which this treatment is applied.

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RADIUM AND ITS PHYSICAL PROPERTIES.

BY

O. BUSECK, PHILADELPHIA.

(Read before the Philadelphia Society for Clinical Research).

THE memorable discovery of the X-rays by Professor Roentgen in 1895, familiarized scientific workers with a type of radiation able to traverse objects opaque to light.

The Roentgen rays are themselves invisible to the eye, but produce visible luminescence of such substances as platinum, barium cyanide; and will reduce the silver bromide in a photographic plate.

The first discovery of the property we now call radio-activity was made in the year 1896 by M. Henry Becquerel in Paris.

In a few years the elementary principles of radio-activity will be taught in all schools as belonging to the very beginning of physical science.

Highly technical and complicated as many of the researches on radio-activity are, the main conclusions of the science are as simple and certain as they are fundamental and of general interest.

M. Becquerel found in his experiments that the photographic plate beneath a preparation of uranium was darkened.

The preparation had given out rays which, unlike sunlight, were capable of penetrating the black paper, and this action led to the discovery of an entirely new inherent property of the element uranium.

THE MAIN EFFECTS OF RADIO-ACTIVITY.

First. Radio-active substances affect a photographic plate.

Second. Radio-active substances excite phosphorescence or fluorescence in certain substances when brought in their neighborhood (willemite, zinc sulphite, barium-platino-cyanide, diamond, fluospar and various other minerals).

Third. Radio-active substances cause the air and other gases to lose the insulating power they normally possess and become partial conductors of electricity.

Fourth. Radio-active substances generate heat.

Exact physical experiments have demonstrated that all

these effects of radio-activity owe their origin to the fact that radio-active substances emit three different types of rays, known respectively as the alpha, beta and gamma rays.

This distinct feature of radio-activity is not, however, so much in the rays the radio-active substances emit, though they are remarkable. The most interesting feature of this new property consists in the spontaneous and continuous emission of energy, of which the rays are but one manifestation.

Radio-activity is a process going on in matter which we cannot influence or stop. Transmutation is a process which we have so far failed to influence, but these two processes, radio-activity and transmutation, are intimately connected.

Radio-activity is an intrinsic property of the element uranium, this Madame Curie first recognized, and it formed the starting point of her work, which led to the discovery of radium in 1898, when the world was made familiar with an element over a million times as radio-active as uranium, and this new substance, radium, gives out energy year in and year out, without apparent intermission or diminution, and without the substance being in any apparent way consumed or altered.

The first pure metallic element radium was produced by Curie and Debierne in 1910.

EXTRACTION OF RADIUM—RADIO-ACTIVE ORES—BY-PRODUCTS.

A certain mineral called pitchblende, especially the variety from the celebrated Joachimsthal mines in Austria, contain from 20 to 90 per cent. of uranium, in the form of uranium oxide, U_3O_8 .

Klaproth in 1789 extracted uranium from pitchblende. Peligot in 1840 produced chemical pure uranium.

Radium-activity of pitchblende on the photographic plate is beautifully shown by this photograph (Fig. 1).

The principal source of radium until recently was pitchblende derived from the ores of the Joachimsthal mines in Austria.

Carnotite is found right here in the United States (Utah and Colorado), and the uranium oxide in this ore usually runs from $1\frac{1}{2}$ to 3 per cent.

A few pockets of carnotite have been recently located in Paradox Valley, Colorado, with an average of 10 per cent. uranium oxide in the ore.

Fergusonite from Sweden runs about 15 per cent. of uranium oxide in the ore.

Radio-active ores are found in almost all parts of the world. Radium derived from any one of these ores is identically the same.

There are various ways and means in which the reduction of ores is carried on.

Bulletins No. 70 and 104 of the Bureau of Mines, issued

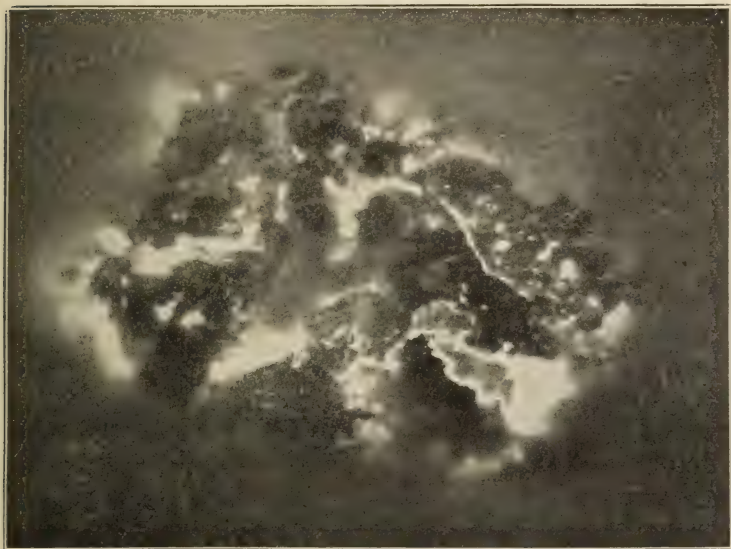


FIG. 1. Exposure six hours.

by our Government, 1914 and 1915 respectively, (Preliminary Report on Uranium, Radium and Vanadium; and Extraction and Recovery of Radium, Uranium and Vanadium from Carnotite) describes a number of commercial methods of treatment and extraction of radium.

The Austrian method of extracting radium from pitchblende in general is as follows:

One ton of the average 60 per cent. grade of pitchblende is treated with about 5 tons of chemicals (sodium hydroxide) and 50 tons of water until about 60 pounds of a concentrated solution remain, then crystallization (hydrochloric acid) is begun until about 12 to 15 pounds remain. This remainder is reduced in porcelain dishes to about one pound, and we get a solution of radium chloride.

This radium chloride is treated with hydrobromic acid and barium and we get a solution of radium bromide.

By further crystallization this volume is reduced to a few centigrams of radium bromide, which has a radio-activity of about two million volt units.

This is a very good explanation why radium is so expensive, as it takes two chemists about eight months to do this work.

While this process of extracting and reducing is going on, various by-products are derived from the different concentrations.

Though we call these by-products, they have been known and used for a great many years previous to the discovery of radium.

One of the most important of these by-products, vanadium, is being used in the steel industry.

Uranium sodium nitrate is extensively used in the ceramic, in the coloring of glass and the manufacture of porcelain. All the beautiful colors of Bohemian glass so well known to every one, are being produced with uranium sodium nitrate.

Uranium nitrate is known to the medical profession, although rarely used in prescriptions; it is also used to some extent in photographic work.

After these products have been extracted we get the so-called radio-active residues, which are a hundred times more radio-active than the original pitchblende.

There are a great number of elements in pitchblende; most of these are present in very small amounts. Madame Curie found in separating these elements that two of them were apparently strong radio-active, namely, bismuth and barium; later researches, however, showed that the apparent radio-activity of these elements was really due to the presence of two new elements mixed with the barium and bismuth in minute amounts. The one associated with bismuth was discovered first by Madame Curie, and named polonium, after her native country (Poland). The other associated with barium, discovered very soon afterwards, is radium.

Radium is an element so closely allied in chemical properties to barium, that apart from a slight difference in the solubility of the chlorides and bromides, it is difficult to distinguish chemically between them. The exact quantity of radium in pitchblende and other uranium minerals is of considerable importance. There is about one part of radium in five million

parts of the best pitchblende. The radium extracted is a million times more radio-active than the mineral, and several million times more than pure uranium itself.

A very small quantity of radium is sufficient to confer on a large quantity of an inactive salt, many of its own peculiar properties. A very minute quantity of radium mixed with a quantity of very highly phosphorescent body, like sulphide of zinc will shine in the dark so brilliantly that an inexperienced person might believe it must contain a large quantity of radium.

Professor Soddy determined, in the physical chemical laboratory of the University of Glasgow, that a quantity so small as one-three-thousandth-millionth of a grain of radium can easily be detected. This is far less than could be detected in the case of any radio-active element by any known method, not even excluding the spectroscope. All the powerful resources of the modern laboratory, extremes of heat and cold, pressure, violent chemical reagents, the action of powerful explosives, and the most intense electrical discharges, did not affect the radio-activity of radium, or its degree of activity in the slightest.

The first analysis of the complex radiations emitted by the

Ionizing Power	Penetration	Absorption of $\frac{1}{2}$ by thickness of aluminium
α rays.....10,000	1	0.005
β rays.....100	100	0.5
γ rays.....1	10,000	80.0

FIG. 2.

radio elements was done by Prof. E. Rutherford, and he classed the rays (Fig. 2) into three main types, alpha, beta and gamma, distinguished from one another by enormous differences in their power of penetrating matter, and in their wave lengths.

PROPERTIES OF THE ALPHA RAYS.

Alpha particles are positive electrically charged particles of matter projected with great velocity (one-tenth that of light). Alpha particles from radium and their products all have the same mass and are atoms of Helium. The heating effect of radium is a result of the bombardment of the radium by its

own alpha particles. One alpha particle produces in its flight 153,000 ions (Fig. 3). The nature of the alpha rays is regarded as being due to the flight of swarms of Helium atoms expelled from the radio-active substances with almost inconceivable speed of from 8,000 to 20,000 miles per second.

THE BETA RAYS.

Beta rays are particles charged with negative electricity. Soddy calls the beta particle of radium an atom of negative electricity. They travel with the speed of light (185,000 miles

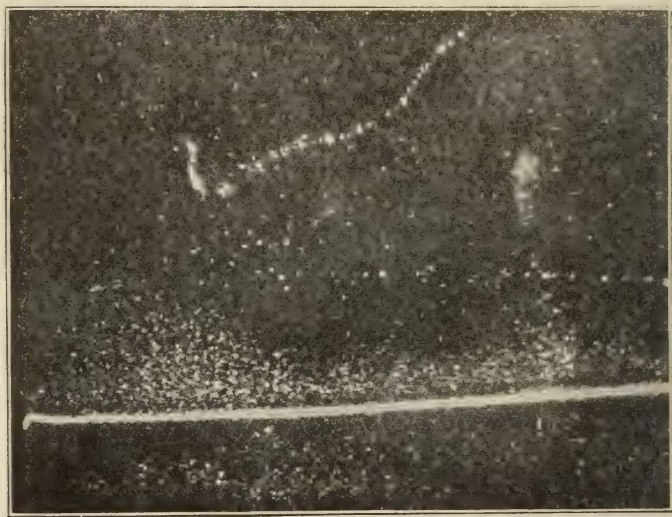


FIG. 3. C. T. R. Wilson's photograph of the path of an alpha ray, producing in its flight 20 to 30,000 ions per cm.

per second). Beta rays, as well as alpha rays, in their flight are easily deflected by a magnet (see Fig. 4), but in opposite directions. Beta rays are very similar in nature to the Cathode rays of Sir Wm. Crookes. The beta corpuscle is the same as the Cathode corpuscle (electron).

THE GAMMA RAYS.

The third type of rays emitted by radium is called the gamma rays. They are not deflected by the most powerful magnet and are the most penetrating rays of all three types: and are practically only annihilated by space. Their power of

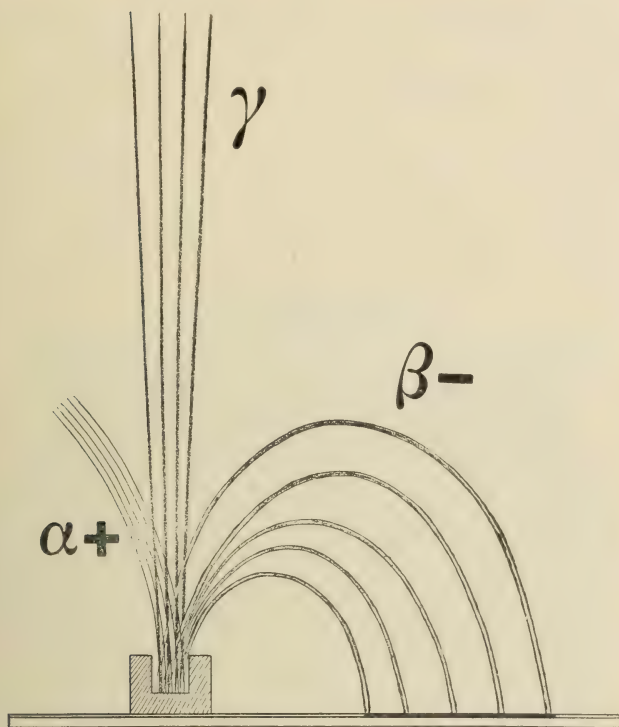


FIG. 4. The three types of rays emitted by radium. Of the total radiation, alpha rays represent 90 per cent. ; beta rays, 9 per cent. ; and gamma rays, 1 per cent.

penetration is extreme, passing undisturbed through many centimeters of lead. Of the total radiation of radium, alpha rays represent 90 per cent. ; beta rays, 9 per cent. ; and gamma rays, 1 per cent.

ATOMIC DISINTEGRATION.

Through Prof. Rutherford's work it became evident that radio-activity is accompanied by manifestation of atomic disintegration. It is known that in the smallest conceivable grain of matter there is a mentally inconceivable myriad of separate atoms. In a tiny quantity of radium bromide, weighing one-half of a grain, and assuming that the compound is pure, we know with fair certainty that there are fifty million billion separate atoms of radium (5×10^{19}). It has been proven that one-two-thousandth of these disintegrate yearly. There are about 32,000,000 seconds in a year, so that every second of

time about one thousand million of these radium atoms disintegrate.

A SINGLE ATOM OF MATTER.

Imperceptible to the older physicists, a single atom of matter can now be clearly observed. This problem was solved by Sir Wm. Crookes by means of an instrument he devised and called the spinthariscopes (Fig. 5). The amount of radium in each instrument is absolutely unweighable and invisible. If in

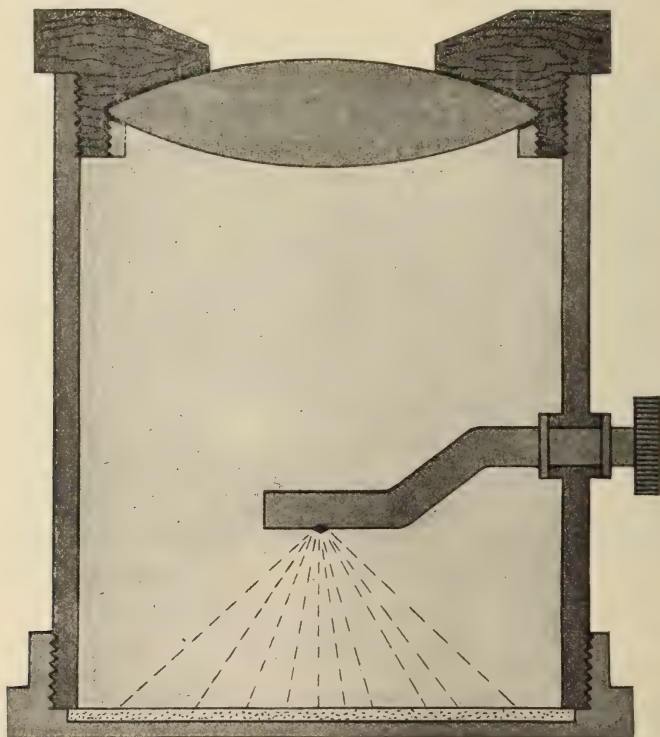


FIG. 5. Spinthariscopes of Sir William Crookes.

a dark room, the screen is observed after the eye has become accustomed to the darkness, bright momentary flashes of light or scintillations too numerous at any instant to count, are appearing and disappearing in the field of vision (Fig. 6). This minute trace of radium is constantly belching forth alpha particles. Professor Wood stated that the luminosity did not last more than one-forty-thousandth of a second. After a time the phosphorescent

screen will be worn out by the incessant bombardment, but replaced by a new one, the radium will be found to be as energetic as ever. The owner of the instrument will pass away, his heirs and their successors and even his race will probably have been forgotten before the radium shows any appreciable sign of exhaustion.

The philosophers of only two decades ago would have ridiculed the hope that we should ever be able to look through



FIG. 6.

a magnifying glass to see the effect of a single atom of matter, yet each of the scintillations in the spinthariscopes is nothing else.

THE EMANATION OF RADIUM.

Radium is not constant. One-half of any given quantity of radium will have disintegrated, according to Prof. Rutherford, in about 2,000 years. The first disintegration product of radium is a gas which is intensely radio-active (Fig. 7). This gas has been named by Prof. Rutherford "The Emanation." (Niton E. Ramsey). This new radio-active gas does not enter into chemical combination with other elements and belongs there-

fore in the group of the inert gases, such as Helium, Argon, Xenon, Neon and Krypton. When an atom of radium disintegrates, an atom of Helium and an atom of emanation are simultaneously formed. The radium atom, minus an alpha particle, becomes the new substance, emanation. The emanation, weight for weight, is about one hundred thousand times as active as the radium from which it is derived. In a solid preparation of radium the emanation is occluded in the compound



FIG. 7. A drop of radio-active water showing the scintillation of alpha rays from radium emanation on a plate of barium-platino-cyanide.

and only a fraction escapes (2 to 5 per cent.). The average life of radium emanation is 5.3 days. Prof. Rutherford showed that radium emanation diffuses through air like a gas of heavy molecular weight and behaves like a chemical inert gas and is unaffected by the most drastic physical and chemical treatment.

Radium in its chemical nature belongs to the elements of the family of the alkaline earths. (Barium, strontium and calcium). Emanation regularly undergoes a change and does not therefore accumulate in quantity with lapse of time beyond a certain very small extent, for in a very short time after the

process of accumulation of emanation from radium begins, as much emanation will disintegrate as is formed, and the quantity from that time on will remain constant, and this we call "Radio-Active Equilibrium." The transformation of emanation is accompanied by an enormous evolution of heat. At present we know of eight subsequent changes taking place from radium (Fig. 8). Each of these changes or disintegrations is formed from the one preceding it with an outburst of energy, changing into the next with another outburst of energy. Suppose that radium initially deprived of all its products is placed in a closed

SUCCESSIVE TRANSFORMATIONS

PROF. E. RUTHERFORD

Radium Series	Atomic Weight	Half Value Period	Radiation	Range of α Rays at 15° c.
Radium	226	2000 years	α & slow β	3.30 cms.
Ra. Emanation	222	3.85 days	α	4.16 cms.
Ra. A.	218	3.0 minutes	α	4.75 cms.
Ra. B.	214	26.8 minutes	β γ	
Ra. C.	214	19.5 minutes	$\alpha + \beta$ γ	6.57 cms.
Ra. D.	210	16.5 years	slow β	
Ra. E.	210	5.0 days	β γ	
Ra. F.	210	136 days	α	3.77 cms.
Ra. G.	206 ?	?	?	

FIG. 8.

vessel, the successive transformations occurring are shown here (Fig. 9) with the half value period of each product added. It looks as if lead in all probability would prove to be the ultimate product of this series. It must be remembered that the atomic weight of Helium is not very accurately known, and is probably a little below, rather than above, 4. So that the atomic weight of lead, 207, agrees well enough with the estimate, 206, obtained by subtracting from the atomic weight of radium, 226, the weight of 5 alpha particles, or Helium atoms, known to be expelled. Lead is found in most of the common minerals containing uranium in considerable quantity, and there is also some evidence that the older the geological formation from which the mineral is obtained, the greater the percentage of lead present. This question though is still unsettled.

ACTIVE DEPOSIT.

Any substance exposed to radium will be covered by an invisible deposit of intensely radio-active matter, called active deposit, and this represents the radium emanation and decay products, Radium A, B and C. Radium emanation in breaking

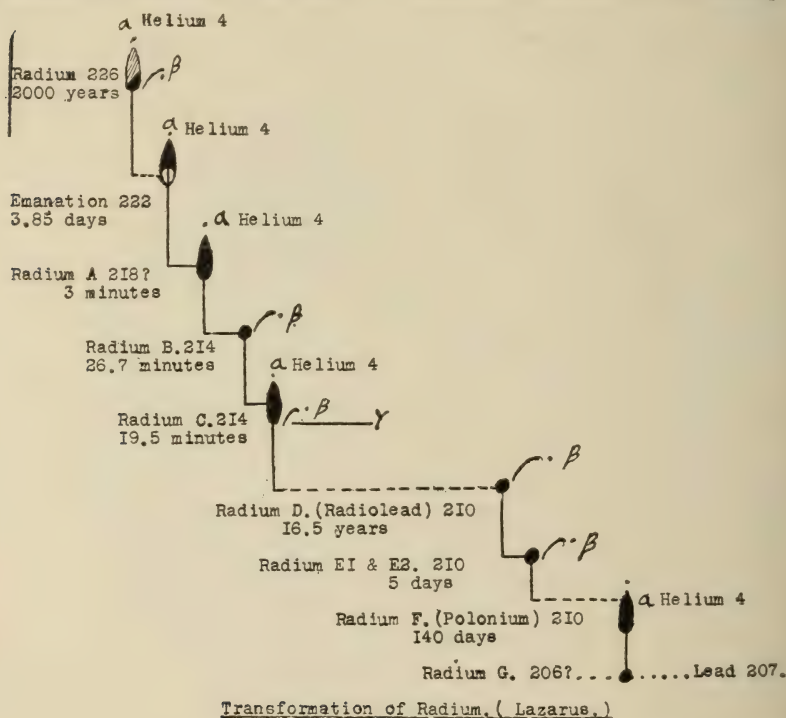







FIG. 9. The figures next to the elements are the atomic weights; those underneath are the half life periods.

up emits an alpha particle. After the expulsion of an alpha particle, the emanation turns into the active deposit. The residue of the atom is lighter than before, and becomes the atom of a new substance, radium A, and is a solid matter. Radium A undergoes a series of transformations, giving rise in turn to new types of matter, Radium B, C, etc. (see Fig 9). Active deposits are of quick decay and have comparatively a short life, though with these more rapid changes we have a greater display of energy. The active deposits can be readily distinguished from each other by their characteristic decay curves and by the penetrating power of the types of radiation emitted. After

about three hours, the active deposit is in radio-active equilibrium with the emanation and then decays at the same rate as the parent substance, the intensity of the beta and gamma rays will diminish at the same rate and according to the same law as the emanation itself. In this way the activity was found to diminish, according to an exponential law, falling to half value in 3.99 days. The agreement of these periods of decay

COMPARISON BETWEEN α AND β RAYS OF RADIUM			
	MASS	SPEED	ENERGY
α			
β			

Relation Between the Mass, the Speed and the Energy of α and β particles of Radium

(From RUTHERFORD, *Radioactivity*.)

FIG. 10.

obtained by different methods shows that the amount of active deposit is always proportional to the amount of emanation present at any time during the life of the emanation.

This is one of the proofs that the active deposit is a product of the decomposition of the emanation.

If we dissolve radium-bromide or radium-chloride in water and evaporate the liquid down to dryness in order to get back the solid compound, we find that the radium had temporarily lost the greater part of its radio-activity. The penetrating beta and gamma rays would have completely disappeared and the non-penetrating alpha rays are only one-quarter as powerful as initially. Then a strange thing happens. Left to itself, the radium will spontaneously recover its lost activity from day to day and at the end of a month it will be (Fig. 10) as active as it was at first.

IONISATION.

The alpha particles in consequence of their impact on other atoms lose their electrostatic charge, and are thereby broken up into electrons and atoms of Helium. This atomic explosion is easily demonstrated by the saturation current produced in a gas by its ionisation, and is rendered visible by the discharge of an electroscope.

If the saturation current is measured in electrostatic units, the testing of small amounts of emanation, especially in mineral springs, results in very small fractions. In order to obviate this, Prof. Mache proposed to multiply this unit by 1,000. This unit is so convenient that it is made use of at all the well-known spas, and by specialists in radium therapy who use the Mache unit for the quantitative determination of radium emanation.

CHEMICAL ACTION OF RADIUM EMANATION

Ramsay & Cameron found that the purified emanation from about one-tenth of a gram of radium transformed carbon dioxide into carbon, carbon monoxide and oxygen. Ammonia was changed into nitrogen and hydrogen, and hydrochloric acid gas into hydrogen and chloride. They found that the amount of chemical change was proportional at any time to the activity of the emanation, showing that, under the conditions of the experiment, the transformation of each atom of the radium emanation produces a definite chemical effect. They also found that gases were recombined by the action of the radiation. For example, nitrogen and hydrogen combined to form ammonia. The decomposition of water by the radiations appears to be brought about, mainly due to the effect of alpha rays and only slightly due to beta and gamma rays. A definite comparison of the rate of evolution of gases by the alpha and beta rays has been made by Usher, using the radium emanation as a source of radiation. A known quantity of radium emanation was dissolved in a large quantity of water with no free space above it. In the course of a month, the emanation has decayed to a small fraction of its value. The gases were then pumped out and found to consist mainly of electrolytic gas, with an excess of hydrogen, a little carbon dioxide and a trace of nitrogen. He deduced that the amount of gas produced by

the decomposition of the emanation from one gram of radium was equal to 136.7 c.c. This is due to the combined action of the alpha and beta rays. The corresponding amount for beta rays was 6.49 c.c. The relative efficiency of alpha and beta rays from emanation in decomposing water is thus about 20 to 1. There appears to be no doubt that the marked chemical action of alpha and beta rays is connected with the ionisation they produce in all kinds of matter. It has been found that the mixed gases obtained from the action of radium emanation on water always contain a small quantity of Helium.

THE ELECTROSCOPE.

Through the introduction of emanation into the ionisation chamber of an electroscope, the emanation causes the leaf to lose its charge and the rate at which the discharge occurs under defined conditions can be used accurately as a measure of the amount of emanation present. The test is qualitative as well as quantitative, and there is no possibility of making a mistake as to the identity of the emanation and of the radium from which it is formed.

INTERNAL MEDICAL USE OF RADIUM EMANATION.

The curative effects of numerous European as well as American springs have been known for hundreds of years previous to the discovery of radium and its emanation, and therapeutic effects were only obtained when these waters were drunk at the mouth of the springs. Since radium and emanation were discovered, and the short life of emanation was once established, it is due to the original research work of Dr. Sauberman, who, in conjunction with Professor Lazarus, constructed a strictly scientific radium emanation activator, with which a patient is enabled to draw off a certain amount of water, saturated with a certain definite amount of radium emanation in exact dosage and strength per day (Fig. 11).

Good results have been claimed by a number of well-known authorities by the use of radium emanation water, in cases of high blood pressure, arterio sclerosis, gout, sciatica, neuritis and rheumatism. In conditions which baffle the skill of the physician, and medication afforded no results, radium emanation must not be expected to alleviate such conditions quickly.

nor to perform miracles. Radium emanations, however, taken persistently for long periods (from three to six months or



FIG. 11. Sauberman radium emanation activator. (Lazarus.)

more), the system will gradually respond to this treatment and the patient's condition will become more comfortable.

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ON THE RECOGNITION OF INCURABLE CONDITIONS.

BY

R. F. RABE, M.D., NEW YORK.

(Read before the New York Homœopathic Medical Society).

THIS is a topic related to the philosophy of homœopathy, upon which more or less has been written and said by the writer, as well as by others in our school. Its importance arises from the fact that it is intimately associated with a consideration of the sphere and scope of homœopathy and of its principles, together with the extent of their application.

It requires no argument to prove that homœopathic practice in general is in a deplorably chaotic condition. Any one who is at all familiar with the practice as exemplified by the average homœopathic physician, or as typified in our homœopathic hospitals, must readily admit the truth of this statement. The rank and file in our school are dissatisfied with their homœopathic armamentarium and have therefore departed from principle solely because the latter has apparently failed them in their daily work. No man will deliberately throw away a good tool for a poorer one, unless he is ignorant of the method of usage of the former, in which case the poorer tool will enable him to get results, more or less imperfect to be sure, but still to be regarded as "results," and it is the latter which are naturally demanded by both patient and physician.

To the writer's mind it is this lamentable ignorance of homœopathy which is responsible for the increasing apathy towards our materia medica and its resources. Too many of us are eagerly embracing the alluring though false prospects of polypharmacy, instead of devoting ourselves to a study of principles whose observance will lead to successful results. The fault lies partly with our homœopathic colleges, but more especially with the physician himself, who is usually too complacent or too indolent to apply himself to a study of anything which seems abstruse or of remote application. It is a hopeful sign that the colleges are everywhere taking steps to overcome their shortcomings in this respect and are endeavoring more and more to place homœopathy upon a rational scientific basis.

In the treatment of any disease we may roughly classify the case as acute and functional or chronic and organic. No hard and fast line can, of course, be drawn, since even functional disturbances presuppose some organic change, however slight this may be. Yet, it is a fact that the acute disease is usually likely to do one of two things, viz., it either gets well or it kills the patient. Nature strives, more or less imperfectly perhaps, to bring about a cure.

In the chronic disease, on the other hand, spontaneous cure is the exception, increasing organic change is inevitable and sooner or later must overwhelm the patient. Right here the question as to how much can be expected of therapeutic effort comes up, and in deciding, if possible, this question we must turn to a study of drug action for a partial answer. Leaving aside, for the purpose of this discussion at least, the consideration of the personal equation of the patient himself, his resistance, etc., we are obliged to consider not only subjective symptomatology of both patient and drug, but also objective phenomena as produced by the latter and as they may be present in the former.

Drug proving, in humans at least, has rarely if ever been carried to the extent of producing decided pathologic change, for reasons obvious. Nor is it necessary, for the purpose of making homœopathic cures, that this should be done. Yet, on the other hand, where we have positive knowledge of such pathologic effects produced by drugs, our choice of a remedy is to this extent made more certain. Hinsdale, of Columbus, Ohio, has, during the past year or two, engaged in the proving of drugs upon rabbits and other animals. Invariably his results, expressed in pathologic phenomena, have confirmed the trend of actions of each drug experimented with, as outlined or suggested by the older or existing provings. For example, in the rabbit he has been able to produce gastric and duodenal ulcers by feeding to these animals for varying periods of time, homœopathic low potencies of *kali bichromicum*. With the tincture of *chelidonium* he has produced congestion of the liver and with the same preparation of *secale* he has caused gangrene in the comb of the rooster. In rabbits, by feeding iodine for several weeks, he has been able to cause enlargement of the thyroid gland, enlargement of lymphatic glands in general and extreme emaciation, as well as hemorrhage from the kidneys.

Surely such results are not only confirmatory of our present knowledge of drug action, but also aid in extending this knowledge in directions heretofore little surmised. By feeding low potencies of lead to dogs, he has caused violent colic, which he has been able to relieve within fifteen minutes with the thirtieth potency of opium, whereas the "control" dog suffered for several hours. This latter experiment is particularly interesting and valuable, in that it affords a scientific demonstration of the curative power of the highly potentized drug, homœopathically applied.

Hinsdale does not claim that provings upon animals should supersede those made upon humans, neither does he insist that such results which may be obtainable by animal experimentation will make of the physician a better prescriber. Yet, in fairness, it must be said that his achievements will go far toward establishing a real interest in the scientific character of homœopathy, which mere assertion based upon the usual presentation of case reports will not do.

There is, however, another phase of this question, indicated by the title of this essay, and, it is to this that the writer wishes to draw special attention. There must be a point at which or beyond which pathologic change ceases to be amenable to cure. This we may, in fact must grant, as otherwise our terminal cases in which organic destruction is marked, would get well. Why do they not get well, and at which point do they cease to respond to well intentioned therapeutic efforts? Why, for example, does the chronic nephritic often, in fact usually die, when such drugs as *mercurius corrosivus*, *kali chloratum*, *plumbum metallicum*, *apis mellifica*, etc., produce lesions precisely similar to those found in acute or chronic nephritis in its several varieties. The answer is simple, and is to the effect that, when pathologic change has arrived at the stage that function ceases to exist, death must take place, provided, of course, that one of the noble organs, such as the heart, lungs, kidney or brain, be effected.

At which point are we able to recognize the fact that a given disease is incurable, or to put the question in another way, when can we definitely form an unfavorable prognosis? In the experience of the writer, the answer is summed up in the following observation and conclusion: Every case presents both objective as well as subjective symptoms; the former are comparatively unimportant and feebly expressed

in the average acute case showing functional disturbance. The latter are of great importance to the physician in that they typify and individualize the patient by distinguishing his case from any similar one, thus directing attention to the needful remedy which is homœopathic to the patient and not merely to his disease. That case, on the other hand, which presents practically nothing but pathognomonic symptoms is a most unfavorable one for homœopathic prescribing; so much so that it is usually of an incurable nature. Now the case which is marked by this very predominance of pathognomonic symptoms is usually the one in which pathologic change has proceeded the farthest, and when this is so the individuality of the patient himself becomes submerged, and, since homœopathy relates in its therapy to patients and not to diseases, such a case can always be put down as an incurable one, whether immediately fatal or not. It is true that often a few flickering symptoms of the patient himself will come to the surface and these will enable us, more or less imperfectly, to apply a similar remedy; the results are merely palliative, however, and rarely is the downward progress of the case more than temporarily halted.

Where in any case such a state of affairs exists, the real curative office of homœopathy comes to an end. Other extra-homœopathic measures may give temporary relief, or may for other reasons seem advisable; they may and do at times prolong life, by reason of their powerful stimulating effects, and under such circumstances are not only justifiable, but also demanded. Though incurable, the patient has a right to as much of his life as it is possible to give him and no considerations of narrow adherence to principle or dogma should prevent the physician from giving whatever aid may be available; for, after all, the true physician is he who, although guided by principle, recognizes the limits of the application of principle and does not hesitate, with a clear understanding of what he is doing, to step beyond its boundaries.

THE SYMPATHETIC NERVOUS SYSTEM AND THE EMOTIONS.

BY

R. C. SCHIEDT, SC.D.

PROFESSOR OF BIOLOGY, FRANKLIN-MARSHALL COLLEGE.

(Read before the Hahnemannian Institute).

AMONG the objects of modern scientific research, the sympathetic nervous system takes first rank. It is of more than merely or purely scientific interest, in as much as it has been demonstrated to be the mechanism of the human body which is most startlingly affected by our temperamental emotions. My own investigations go even farther. I would add that the capillary network surrounding the nerve cells acts as a regulator of impulses, either inhibiting or stimulating the actions of the various organs controlled by this system. I claim that all our nerve actions are rhythmically started or stopped through the surging waves of blood which envelop the nerve matter; the organ which controls this rhythmic action is the neuroglia of the central nervous system, with which the sympathicus is closely connected. The causes, however, which preëminently produce the reactions of the sympathetic nervous system are psychic rather than physical. We all know how in moments of anger or joy, fright or delight, our heart beats faster, our face is flushed or grows pale, our breathing is accelerated or retarded, or in moments of greatest excitement, how our digestion is disturbed, a feeling of seasickness comes over us, causing even complete collapse and fainting. The latest research refers all such conditions to the realm of the sympathetic nervous system, and it might be of interest to undergraduate medical students to discuss some of the more recent results which demonstrate how thoroughly this nervous system controls all the vegetative functions of the body and at the same time is closely connected with psychic processes, which in a rather painful manner show how dependent these functions are on the conditions of the central nervous system.

To repeat, the sympathicus controls the vegetative functions of our body as well as the heart beat and the distribution of the blood to the various organs; it mediates the secretions and excretions of the digestive juices and the peristaltic motions of stomach and intestine; it acts upon the kidneys and power-

fully influences the heat economy of the body by regulating the distribution of the blood through the skin and affecting perspiration.

All this is done directly by the action of certain nerve tracts, but also indirectly through their influence on the chemical correlation of the organism, in so far as the sympathicus increases or inhibits the action of the so-called blood glands, viz., the pituitary body, thyroid and thymus glands, the pancreas and the adrenal glands, organs which produce highly potent substances, transmitting them to the blood and the body fluids in general.

Let me briefly sketch the structure of the sympathicus and then discuss its functions. The sympathetic nervous system is in intimate anatomical and functional connection with the central nervous system, although it reserves a certain independence. Langley therefore calls it in its entirety the autonomic nervous system, reserving the name sympathicus for that part which has its roots in the thoracic and lumbar regions of the spinal cord, while he calls the remainder, *i. e.*, the part starting in the mid- and hind-brain and in the sacral part of the spinal cord, the *parsympathicus*, but the names cranial and sacral are the more common. Such a division and distinction is anatomically and physiologically justifiable, nay necessary.

The roots of the system are nerve processes starting from ganglionic cells, the position of which in the brain and spinal cord is somewhat homologous to that of the somatic or spinal nerves, which supply the entire muscular system. Therefore, the autonomic system might, as often has been done, be classified with the efferent or centrifugal nerves of the body, if fundamental differences would not demand a separate treatment, as Metzner and a host of other investigators suggest. While the somatic nerves at regular intervals branch off from the entire central nervous system, the brain and the spinal cord furnish sympathetic roots only at certain places, *i. e.*, only in the mid- and hind-brain at the 3rd, 4th, 5th, 6th, 9th, 10th, 11th and 12th cranial nerves; in the spinal cord only at the thoracic and upper lumbar region and the sacral region. As compared with the regular and uninterrupted series of the somatic nerve roots, the sympathicus shows rootless gaps of considerable extent. This was discovered by Gaskell, of Oxford, and his pupil, Edgeworth, succeeded in proving that also the sensory, *i. e.*, centripetal or afferent nerve fibers of the sym-

pathicus, have the same limited distribution, which means that for the information which heart, blood vessels and viscera give of their condition (whether empty or filled, in tonic tension or relaxation) to the central nervous system, they are restricted in their contact with the spinal cord and the hind-brain in like manner as the efferent sympathetic nerve fibers. An incision into the spinal cord between neck and thorax—an injury which would still allow sufficient respiration and therefore continuation of life—would therefore cut off every and any influence the brain might have on the expansion and filling of the blood vessels and likewise prevent the arrival of any information in the central organ concerning the condition of these organs; especially if the exclusion of the lower vagus is involved. Moreover, all sympathetic roots contain comparatively few nerve fibers.

J. N. Langley, of Cambridge, together with Dixon, found by the use of a new method the second distinction between somatic and autonomic nerves; while every efferent somatic nerve fiber from beginning to end passes uninterruptedly through a striated skeletal muscle, every autonomic nerve fiber is once and only once interrupted by a relay station in the form of a new ganglion cell, located in one of the numerous ganglia or nerve plexuses of our internal organization. The central root fiber terminates here—it is therefore called the preganglionic fiber; the nerve process of the new ganglionic cell, a sort of switch cell, continues as postganglionic fiber, leading either to a cardiac muscle fiber or a gland cell or to one of the smooth muscle fibers, which constitute the motor and elastic forces for the entire alimentary tract, for all the pelvic organs, for the integumental hairs and for all the blood vessels.

Both meeting points, both that of the preganglionic fiber with the switch-cell and the termination of the postganglionic fiber in the end organ are called synapses, which means that here a specially constructed substance or several such substances form the connecting bridge. Moreover, both the preganglionic and the postganglionic fiber are equally supplied with lateral branches or collaterals just as the nerve fibers in the brain and spinal ganglion, and each of these collaterals is linked by synapses to the chief branches.

The mechanism of the synapses is very complicated. Anatomically: The nerve at its termination in the end organ

(muscle fiber or gland) or relay ganglion anastomoses, and thus supplies several ganglionic or muscle cells with stimuli. There is, however, nowhere a direct transition from the nerve fiber to the tissue of the corresponding end organ; there are always one or several substances interposed which constitute the transition. Especially is this true of the terminations of the autonomous nerve fibers in the end organs, *i. e.*, of the terminal anastomoses. The nature of these interposed or mediating substances is entirely unknown, but they are very important factors in as much as the stimulus reaching the nerve fiber is either exciting, *i. e.*, active, or inhibiting, *i. e.*, passive, causing a cessation or decrease of activity. Experimental investigation has demonstrated that the chemism which produces this change in the last instance is influenced through medicine resp. poisons. Thus by proper treatment the normal response may be changed into the very opposite, which furnishes on the one hand an insight into the reacting substances and on the other shows how to regulate the organism through medicine.

This law of a single interposition or the insertion of a new neuron in the autonomous path has no exception, whether the impulse coming from the optic lobes stimulates the pupils, or one from the medulla makes the mouth water, or one from the upper thoracic spinal cord distorts the face with fright, no impulse reaches directly either the muscles of the iris or the salivary glands or the tender fibers of the walls of the blood vessels. The insertion of one intermediate station or relay station saves many conducting lines in as much as every nerve fiber with its collaterals or parallel switches influences many end organs and thus compensates for the many gaps in the system, so that one cranial nerve excites or inhibits the activity of many organs through very few conductors. A sudden fright may almost instantaneously paralyze head, heart and viscera. The distribution of impulses to the different tracks—with due regard to changes in resistance in central and peripheral synapses—depends first of all on the news which the afferent sympathetic tracks furnish.

Experimental investigation has revealed the fact that the innervation of the vegetative organs with few exceptions is a twofold one; each organ receives both fibers from the sympathicus proper, *i. e.*, from the median spinal cord and from the parasympathicus, the cranial autonomic system of the latter

reaching with the last termination of the vagus nerve as far as the middle of the large intestine; the remainder, especially the lower part of the large intestine, rectum, urinary bladder and external sexual organs is supplied by the sacral system. Therefore the two systems of the parasympathicus divide the work of the organs between them, but the sympathicus controls them all and in some cases, e. g., with the *arrectores pilorum*, the delicate muscle fibrils of the hair shafts, it acts alone; at least up to this day no double nerve supply has been discovered for them, just as little as for the kidneys, adrenal bodies and internal sexual organs.

The same double service found in the efferent autonomous fibers has also been established for the afferent, sensory tracks with the same exceptions, a double entrance for news to brain and spinal cord is provided. But the function of the two autonomous systems—thoraco-lumbar and cranio-sacral—are antagonistic. The one controls the heart and makes it beat more slowly; the other excites it; the one sends the blood rapidly through the salivary glands, producing a thin, watery secretion; the other causes strong contraction of the wall muscles of the glandular vessels, making them impassable for the blood current and allowing only small masses of a tough, slimy saliva to exude from the same gland. If impulses from the mid-brain, passing through parasympathetic nerves, cause the relaxation of the vascular walls of the cheeks, so that the incoming blood currents expand them and cause the face to blush, there are, on the other hand, stimuli coming from the upper thoracic cord sent to the head by way of the cervical sympathicus, which quickly throw the vascular walls into violent tension and prevent the blood from reaching the integument of the face, causing a deadly pallor.

Therefore, definite parts of our central nervous system, mid- and hind-brain, and certain parts of the spinal cord control, with the help of the autonomous nervous system, heart and viscera, blood vessels, glands, etc.

The impulse to such control comes partly through the afferent tracks of these organs themselves, through informations on temperature and pressure, need of oxygen and other food, accumulation of waste matter, etc., partly by means of the sensory organs through the effects of the environment on our organism, and finally from the cerebrum itself through the mobilization of the effects of the environment which has been

deposited there and transformed by infinite recombinations and variations into the inner world of our own ego. It is a fact that our consciousness is bound up with the activity of the cerebrum, but how this is done is an unanswerable question. However, and by whatever means the infinitely varying play of our sensations, ideas and impulses may be put into motion, by using the tracks leading to the mid- and hind-brain and spinal cord, it always arouses to co-operation of the organs innervated by the sympathetic system.

Most impressive is the play of nervous excitation, passing along afferent and efferent autonomous tracks, in the heart. It is a matter of common experience how promptly all functional changes in our bodily organs affect the great motor of circulation, but the influence of emotional conditions is by far more striking, especially as regards the strength and frequency of its beats. As already mentioned, there is a cranio-autonomous apparatus of nerve inhibition present and one of thoraco-spinal origin, *i. e.*, a specially sympathetic apparatus which accelerates and strengthens the heart beat. The easy access of cerebral excitations to these autonomous cardiac nerve tracks and the wide avenues leading from the brain to the heart has been the age-old cause of designating the heart muscle as the seat of affections; the words "head" and "heart" are used wherever and whenever we speak of intellect and temperament, of mind and feelings, either in the complementary or antithetical sense. Although we know that all phenomena of consciousness are bound up with the activity of our brain, there is some additional factor at work; in joy and sorrow, anger and grief, pain and pleasure, we most vividly feel the co-operation of the heart, absent in the quiet processes of thinking. But not only the heart is affected in emotional outbursts, also the blood vessels, the lachrimal glands and especially the digestive track; this also finds expression in the old-time views of the stomach as the seat of affections. It must therefore be assumed as characteristic for the emotional excitations of autonomous nerve tracks, that they, in contradistinction from the reflexive tracks are distributed over several organs at the same time; nay, in cases of extreme affections, they spare none. This influence may be either normal or abnormal, either beneficial or injurious. But we shall show later how in the most delicate and useful manner the reflex regulation takes care of the organs and their functions.

even in cases where the impulse does not reach consciousness.

These facts have been ascertained through artificial stimulation by means of the Faraday Current and the Röntgen rays in connection with bismuth. A spoonful of mashed potatoes mixed with bismuth shows through its fluorescence the path through the entire digestive canal.

The classical object for the stimulation of an autonomous nerve track is the so-called cervical sympathicus, which furnishes the conduit for all the sympathetic excitations which pass from the spinal cord to the organs of the head. It is situated near the second and third cervical vertebrae and between the thyroid glands. If we stimulate it on both sides of the neck of a chloroformed cat with slight induction currents, the eyelids open, the nictitating membrane withdraws completely, the eyeballs protrude, a staring look meets us, the lachrymal glands excrete a liquid, the originally slit-like pupil enlarges into a wide, deep, black, round opening, giving the eye a dark, shining expression. There is foaming at the mouth, the hairs of the face, the head and the neck become erect—the same is true of the human experiment, with the addition of the appearance of much perspiration and great pallor. In short, we have a picture which conforms to the ideas of artists and poets when they express great psychic and physical excitement.

If we stimulate a little further down the ganglion stellatum of the upper thoracic region, we observe in addition to the above phenomena, the blood vessels of the forearm contract so as to decrease the volume of the extremities, the heart begins to beat with extraordinary rapidity, the hairs between the shoulders become erect, etc. If we add a very dilute solution of nicotine by means of a brush to the ganglion stellatum, all the effects shown in the head remain and those in heart, shoulder and arm disappear. If we do the same with the cervical ganglion the reverse happens. But all the effects return when we stimulate the postganglionic fiber, showing that the poison did not injure the fibers, but only the synapsis, the switch or relay station, just at the point where the end of the preganglionic fiber touches the ganglionic cell. We know, however, nothing of the character of the changes which take place at the place of contact with the poison. Here lies a great field for investigation, for it is at the points of contact both where the preganglionic fiber touches the ganglion cell

and where the postganglionic fiber touches the organ where the effects of medicine and poison are most conspicuous, but unknown to us. Langley, who, together with Dixon, discovered the above described nicotine effect has used it to work out a method which in his hand led to the discovery of the relay stations in many sympathetic and parasympathetic nerve tracks. The above description proves that the sympathetic relay station for the organs of the head lies in the uppermost cervical nerve ganglia, for the heart and the arm in the ganglion stellatum.

In many respects remarkable results were obtained from the examination of the relay stations for the *arrectores pilorum* and the apparatuses related to them, such as integumental bristles and feathers. They lie at regular intervals along the vertebral column in the *ramus vertebralis* of the sympathetic. By means of nicotine, Langley succeeded in switching off, as it were, all the synapses except one complementary pair, which he stimulated successively from the neck to the tail end, producing in each segment separately the erection of the hairs and thus demonstrating that such a zone corresponded to each segment of the spinal cord. Stimulating the whole vertebral ramus resulted in a simultaneous response along the whole line with one difference, namely, while in the hedge-hog all the spines of the body become erect, in dogs, cats and many other animals only a small strip on either side of the vertebral column shows this phenomenon up to the end of the tail. The same is shown in cats as normal emotional excitation when a cat meets a dog. In many animals specific regions of the hairy integument are known as special means of protection and offense, as we know from Darwin's remarkable book on "*Expressions of the Emotions in Man and Animals*." Sherrington's experiments on the Pavian monkeys in Liverpool are a more recent example. He photographed their expression of pleasure and displeasure caused by the various events in the laboratory and observed in the latter case the collar-like arranged long hairs around neck and shoulders rise and change the appearance of the animal tremendously. The same results were obtained by artificially stimulating the sympathetic.

It is no doubt a fact that this specific nerve path, which is fed by the brain with impulses during emotional conditions and runs along limited sympathetic tracks, the narrow median

dorsal region, is still present in man as a well marked track in spite of entirely changed conditions. Although 95 per cent. covered with hair, the human integument has lost the character of a protective fur and serves purely as a sense organ for the communication of sensations of pressure and touch. The slightest touch of the hair is felt as touch, likewise so when the stimulus comes from within through the fine muscle fibers of the *arrectores pilorum*. When these muscles contract the hair rises and the skin around it becomes puffed up; we call it goose flesh, the *cutis anserina* or *horripilator*, and is accompanied by a similar feeling running across the skin. In accordance with the law mentioned above, that emotional excitations always feed a multiplicity of sympathetic tracks with impulses, we observe that the vasoconstrictory nerves are stimulated; goose flesh, therefore, includes bloodlessness and pallor of skin. The absence of the blood causes a fall in the temperature which in turn stimulates the nerves, transmitting the sensation of coldness. We shiver. Although this goose flesh condition may spread over the whole body surface—for here they act as protective reflexes—*i. e.*, although all the hairs and blood vessels of the skin obey the sympathetic innervation, our language shows us that the emotional excitation of the vasomotors and pilomotors runs along the phylogenetically ancient tract of the median dorsal line, for we hear the feeling expressed in the words “a shudder ran down my back,” or “it ran ice-cold down my back”; even the still stronger expressions, which point to deeper parts, the bones, such as “it penetrates the very marrow of my bones,” or “a shudder went through my very bones,” must be referred to the more deeply projected vasomotor and pilomotor reflex of the dorsal region and, correspondingly, the words: “bone,” “marrow and bone” to the vertebral column, as that part of our bony skeleton which lies beneath that particular part of the dorsal region.

These statements distinguish between primary and secondary effects, claiming the effects on vasomotor muscles, *arrectores pilorum*, pupil, etc., to be the secondary accompanying phenomena put into motion by the sympathetic. Prof. James, of Harvard, is evidently wrong when he says that bodily changes follow directly the perception of the exciting event and in our sensation of these same bodily changes emotion is called forth, *i. e.*, the emotions are the results of the excitations in the

vascular nerve center. With James and Lange the emotional excitement is the result and not the cause for the parallel process to the reactions of the bodily organs, and to Lange the reaction of the vasomotor apparatus is the foundation and corner-stone of the bodily reactions. Deep emotion is the product of a vasomotor reaction, which in turn is caused by a special stimulus. Lange and James believe that the emotional process causes changes in the blood contents of the viscera, the skin and the brain—these changes produce changes in the functions of these organs and the latter cause sensations which in their totality are the chief content of what we call emotional excitation. This is the gist of the James-Lange theory. Just the reverse is true, as experiments show. Prof. Sherrington had opportunity to observe a dog (female) whose great excitability he had known for some time, and which at the age of 9 weeks had suffered a separation of the spinal cord between the thoracic and the cervical region, as well as both vagi nerves. The result had been a complete loss of all sensations which pass from the viscera, the skin and from all the muscles behind the shoulder plates to the brain, *i. e.*, to consciousness, likewise the connection between the brain and the entire blood vascular apparatus of the body, with the single exception of the vasodilators of the skin and mucous membranes of the head is cut off. The dog had been much attached to her keeper and very angry towards other persons, especially cats. These attacks of anger came suddenly and showed all the signs of angry dogs described by Darwin: "Uttering a savage growl, the ears are pressed closely backwards, the upper lip is retracted out of the way of his teeth, especially of his canines; the eyelids are opened wide, the pupil greatly enlarged; hairs on neck and back bristling." After the animal had suffered the above mentioned injury—when stimuli could reach the brain only from the interior part of the body and the head, while the brain had no influence whatever upon the blood vessels of any region of the body—the dog showed the same emotional character as before, but the hair no longer bristled. Also in other respects touching its emotional character, the dog responded as before, *c. g.*, she showed disgust for dog meat. The question is: Did the dog experience the emotions? Undoubtedly. A stranger against whom the dog had a dislike before the injury, was treated in the same way after the injury.

Recently, Elliott has furnished a very interesting contribution to this question, whether emotional excitation is of primary central origin or whether it is secondarily caused through the impulses which penetrate from the sympathetically innervated, emotionally excited organs to the central organ. One of the aromatic compounds the tetrahydro-naphthylamin causes among other pharmacologically important effects in cats a strong excitation, accompanied by all the symptoms attributed to the sympathetic nervous system. The drug acts directly upon the sympathetic nerve centers and directly upon the excitation centers. A cat whose spinal cord was cut was inoculated subcutaneously with this substance "tetrahydro-naphthylaminum hydrochlorium" and the effect was the same as though the cat's spinal cord had never been severed, which proved the emotions were caused by the drug.

The layman still believes in disturbances of the alimentary tract after anger, fright, indignation, etc.—that a meal during which one is annoyed lies like "lead in the stomach"—and wise physicians did not exclude such a possibility, but science was sceptical for a long time since it seemed impossible to present an unobjectionable proof of such processes. However, in recent times means have been discovered to penetrate this mystery without forcing the issue by abnormal or injurious methods. I have already briefly referred to the use of the X-rays. Walter Cannon, of Harvard, trained a number of cats in such a way that they easily assumed a suitable position in front of the Röntgen-screen and allowed themselves to be tied after having eaten a portion of mashed potatoes mixed with bismuth. The whole wonderful mechanism of the stomach as a keeper and regulator or assorter of food could be seen and now the extremely complicated kneading and mixing machine of the alimentary tract revealed its wonderful play. Only the male cats presented an entirely different picture from the female cats. When, after some resistance on their part, they were brought before the Röntgen-screen, stomach and intestines were quiet and motionless, and so was the pulpy mass of food. But when one day one of the cats, which had always shown the motormechnism most beautifully, was again brought before the fluorescent screen—the cat had in the meantime given birth to a number of kittens, from which she did not want to be separated—stomach and intestines were likewise motionless. The rest-

less conduct of the animal caused Cannon to coax her and to stroke her neck gently; the cat began to purr and immediately the stomach motions started again: first, a few constrictions appeared at the gullet opening of the stomach and soon the normal undulating waves passed towards the intestinal end. When Cannon irritated the cat by pinching her nostrils, the waves stopped. This clearly showed that with the male cats the forced position before the Röntgen-screen had stopped the peristaltic digestive motions.

Further investigations have established the fact that the sympathicus along the passage of the nervus splanchnicus—the extensive visceral sympathetic nerve—produces such inhibition effects through some mechanism in the periphery, for after severing this nerve the stimulation of its peripheral stump with the induction current the same inhibitory effects are produced. On the other hand, a stimulation of the vagus nerve—*i. e.*, the cranial parasympathetic tract for the viscera—will set the motionless intestine or stomach into motion. Thus, in the alimentary canal with a third automatically active nervous system in its wall, capable of putting its motormechanism into motion independently, the autonomous nerves are just as in the heart, only the regulators which see to it that the apparatus satisfies the most numerous and various demands and conditions. The transformation of the food in the various parts of the digestive tract takes some time; further separations of finished products must be separated from incomplete products; again in certain places the food must be churned—moreover, indigestible portions must be quickly removed from time to time in order to prevent their being mixed and kneaded with the valuable portions. These complicated performances, whereby a resting portion must alternate with a moving one, are assured through the interference of a higher authority, though the reflexes in the autonomous system, especially the play of the action of the valves which are inserted in the alimentary tract from segment to segment, is most delicately regulated by them. Here the sympathetic and parasympathetic nerve fibers are the path by which information on the quantity and elasticity, as well as on the character of the ingesta, reaches the central organ, to which the thoracic spinal cord and the cerebellum alternately respond as centers of the reflexes.

To sum up: the nerve cell system present in the wall of the alimentary tract—Langley's enteric system—working auto-

matically is the apparatus which starts, regulates and co-ordinates the motions passing from one region of the tract to the next adjoining region. The nerves sent by the cranial autonomous or for the lowest alimentary sections, from the sacral autonomous system and from the sympathicus, in the narrow sense serve the purpose of connecting by reflex action the more distant, not directly, adjoining parts. An example: Every injury, every operative interference in the jejunum, immediately puts into motion the inhibitory apparatus from the pylorus, leaping, as it were, across the duodenum. Cannon and Fred Murphy observed by means of the Röntgen rays, that usually the first portion of a small quantity of mashed potatoes in a cat's stomach enters the duodenum within ten minutes; also that the peristaltic waves uninterruptedly and rhythmically continue from one end of the stomach to the other as long as there is food in the stomach, and that after 3 hours the stomach is empty. After an operation performed in the upper part of the small intestine, the potatoes given one-half hour after the narcosis had passed remained over 6 hours in the stomach, although the peristaltic motions continued. After an operation on the lower small intestine, *i. e.*, about one inch above the iliocecal valve the passage of the food from stomach to intestine was only 2 hours belated, but another blockade was inserted in the intestine itself near the stomach, which kept the food from reaching the injured portion for more than 7 hours with continued peristaltic motion, although the operated portion was passable, for on the following day the food was in the rectal region and the patient in the best of spirits. A protective mechanism of an ideal character. If any region of the digestive tract is in an injured condition, the passage of ingesta is invariably blocked above the injury and always for a period of six hours. This time is the extreme limit which is necessary for the most important processes of healing, *viz.*, the primary closure of visceral wounds. Under otherwise favorable circumstances a serous exudate flows around and about every wound of the peritoneal envelope of the tract,—be it parietal or visceral—which often after two hours causes a cementing of the separated parts; the average time is longer, but never exceeds 6 hours.

It would, however, be too rash if we would assume that the regulative actions of the autonomous nervous system in the alimentary tract would be exhausted with the wonderful inhibi-

tory mechanism exhibited by the peristaltic motions active in the transformation and transportation of ingesta. The secretion of the digestive juices which are essential in the chemical transformation of our food have always been of special interest to the physician. The exact knowledge of these processes dates back to the ever memorable studies of Beaumont, an army surgeon, who almost a hundred years ago, out in the wilderness of Michigan territory, many hundred miles away from any laboratory, experimented with a Canadian trapper, Alexis St. Martin, who, from a gunshot wound in the stomach, retained a stomach fistula. These studies, which date back to the years 1825 to 1833, laid the foundation for all later investigations.

Since then much material has been collected for fertile investigation, but only in recent years, through the brilliant methods of the Russian physiologist, Pawlow, in Petrograd, the wonderful role has been discovered which is played by the autonomous nerve, both in the mechanism of the changing secretions and in the changing chemical character of the digestive juices, although the statistics of the Pawlow School must be taken *cum grano salis*. The sympathetic nerve mechanism is especially active in the initial secretion not yet supported by the chemical effects of the resorbed products of digestion, which later represent the most powerful factor. I only mention here the inhibition of the secretion of the gastric juice which follows vexation; this fact has been so thoroughly established and extended to the other digestive juices that it must be accepted as final, not only for animals, but also for man through many surgical operations. It is clear that the above described emotional total inhibition of the stomach movements represents as it were a correction in the inhibition of secretions. For if, through vexation, often for hours, the secretion of the gastric juice so necessary for digestion is stopped, then the motor is simply stopped, in order that nothing undigested is transported any further and that the stomach glands get time to recover from the inhibition. In this case of inhibition we have to deal with a central effect, *i. e.*, it is not a peripheral apparatus—the automatic alimentary nervous system—as in motor effects, which is here stopped as it were by a brake, but in the central switch of the reflex in the synapsis, an inhibition occurs in such a way that no impulses are further transmitted. Such central inhibitions in the secretions of

digestive juices are familiar to us from daily experiences. After hours of fasting the appetite is aroused; in this condition the odor or sight of a favorite dish, nay, even the mere idea of it, calls forth salivary excretion in the mouth, "the mouth waters," with a pleasurable feeling. After we are satisfied, such a reflex does not occur; we rather have the feeling of disgust; the smell of a broiling roast offends our nostrils. Parallel processes occur in the stomach, caused by the vagus nerve, as proved absolutely by Pawlow.

And this is not all. The condition of our central organ resp., the influence of emotional impulses asserts itself in the almost mysterious realm of the internal secretion. I shall not go into the activity of the so-called "blood glands" mentioned above; they have their name from the fact that their secretion does not flow to the surface or the digestive tract, but back to the blood, whence they had received the material for the building up of these products. These products have a regulating influence on our body and show this effect in the very smallest quantities. These facts have only recently been discovered. Starling called them hormones, *i. e.*, stimulators, because they stimulate many organs and establish the chemical correlations which make our body an "organism," *i. e.*, a complex of inter-dependent organs. These experiments are still in process and it is confidently hoped that the investigators will find places where peculiar constitutional diseases leave traces of their development and new medicaments may find points of attack. It is here that the so-called constitutional anomalies and "constitutional differences" receive new support and interpretation which will lead to a rational definition of those bodies. These blood glands are in close connection with the autonomous system, especially with the sympathicus, giving it a tremendous influence over the chemical correlations and the commingling of the body juices. Two examples: The thyroid gland and the adrenal system. Ophthalmic goiter, or Greves' disease, is characterized by a striking appearance of the patient, the projecting eyeballs, the staring look, rapid heart beat—all symptoms which are due to an over stimulation of the sympathetic nervous system. Operations on the thyroid gland have shown that abnormal thyroid conditions are the fundamental cause of this disease, with its syndrome of sympathetic stimuli. In still closer functional relation to the sympathicus stands the product of the adrenal glands, the

adrenalin, which is carried to the blood in extremely small quantities out of a cellular structure richly supplied with sympathetic nerves and nerve cells. This substance develops in very minute quantities a tremendous effect, a 1/20th of a milligram injected into the blood causes an enormous contraction of the arteries, so that the heart must do its work against tremendous resistance; the blood pressure rises to such a height that the larger vessels are filled to bursting. At the same time the heart beats faster, the eyes and pupils open wide, lachrymal and salivary glands begin to flow, the perspiration grows intense, the hairs stand up, almost instantaneously all digestive motions stop, the bladder relaxes and the sphincter muscle of the urethral opening begins to contract violently. This is the picture of a complete stimulation of the sympathicus, showing exactly the same action of stimulation and inhibition. It is the large nervous splanchnicus, the large visceral sympathetic nerve which produces the secretion of adrenalin and it in turn reacts upon the sympathicus.

It should therefore not surprise us if emotional influences likewise affect the adrenal glands, because here the sympathicus plays such a tremendous role. Cannon's remarkable experiments give us valuable information on this subject. The effect of adrenalin is easily demonstrated on the smooth muscle fibers of the blood vessels and the alimentary canal; the effect is much stronger when they are cut out of the organ. A solution of 2 pints adrenalin in 20,000,000 pints of salt solution causes the contraction of a piece of a calf's artery and inhibits the contraction of a longitudinal section of a cat's intestinal wall which otherwise continues to contract rhythmically when cut out under normal conditions, proving the inhibitory action of the sympathicus on intestines. The enormous sensibility of such a preparation is made use of in order to test the blood of animals or men for the possible presence of adrenalin, for which a few drops of blood suffice. Together with DeLaPaz, Cannon tested cat's blood for adrenalin; it was without effect on alimentary muscle, proving an exceedingly small quantity of adrenation present in the blood. But when he examined the blood of a cat brought to emotional sympathetic excitation by the presence of a dog (bristling of dorsal hairs, enlargement of pupil and projection of eyeball), the reaction of that blood upon intestinal muscle was instantaneously inhibitory, especially when the excitation had lasted

for some time. A circular vitiosus arises—the longer the stimulus the greater the amount of adrenalin and the greater the latter the more intense the effect on the sympathicus. The result is continuous disturbances of the digestive function. Here we have an opportunity to test the bad consequences of long and continuous or very violent psychic excitations as to their causes.

Only a few examples could be produced out of many in order to show how the age-old proverbial connection of the emotional conditions of our soul with the function of our vegetative organs has been made rational and intelligible through modern physiological experimentation. The interaction and opposite behavior of sympathicus and parasympathicus finds its parallel within the play and active sphere of certain poisons, which belong to the most valuable treasures in medicine. A four-fold action is thereby produced, according as an active or inhibitory nerve apparatus is exposed to one or the other effect. This is a purely physiological triumph, although medical practice gave it the start. Not only the place of its preparation, but also the chemical structure of the body was discovered by physiology. Since this was a simple one, it could be prepared synthetically and the practicing physician obtained a remedy without which no obstetrician, no rhinologist or laryngologist or surgeon can be absolutely successful, for even the difficult internal bleedings can be stopped by it; the inflamed mucous membranes of body cavities difficult of access are easily desanguified and opened up, and furnish a valuable addition to all the remedies which are to make an operation painless, for it confines the pain-relieving remedy to the desirable place by stopping the blood current around the injury, thereby preventing the blood from carrying the pain further. For all operations, especially where the condition of the patient forbids narcosis, adrenalin has become an invaluable remedy.

Physiology, like anatomy and biology, in general only acts mediately by creating a scientific preparation for the healing art, and yet by offering new remedies it also helps immediately an ever suffering humanity.

THE IMPORTANCE OF ACETONE IN URINE.

BY

S. R. KLINE, M.D., NORWICH, CONN.

ACETONE or dimethyl ketone is a volatile odorous liquid which is present in traces in normal urine, not exceeding 0.01 grn. in the twenty-four hours. Under various abnormal conditions the amount may be increased, the increase being probably due to excessive formation and not to diminished oxidation. If but a small excess is present in the organism, it may be perceived by the odor of acetone that is given off by the patient's breath before it can be detected in the patient's urine. Dr. Schwartz (see *Centralblatt fuer Stoffwechsel und Verdauungs Krankheiten* 1900) found in diabetics, a considerable increase in acetone excretion after the ingestion of butter and also of the sodium butyrate. He calculated that in the diabetic organism forty-five grns. of acetone were produced out of 2.5 kils of butter.

I had the opportunity to examine here in our institution nearly three hundred specimens of urine of epileptics. While preparing research work to produce epileptic conditions in rabbits and guinea pigs I found in each specimen acetone between 0.05 and 0.1 grn. during twenty-four hours. We usually find acetone in the urine of dementia præcox, manic depressive and melancholia without finding any trace of sugar. Even the specific gravity is not higher—1.020—1.022. At the same time usually large amount of phosphates and indican are found in the same specimen. I always recognize it as an ominous symptom, if acetone is detected in a larger amount than normal and in ninety percent of the cases exitus lethalis occurred before any other important point of distinction could be detected in the patient. Of course less than 0.01 grn. acetone should not be regarded by the attending physician as it is understood that such an amount in each case can be found.

The amount of acetone and diacetic acid that is excreted in the diabetic urine bears no relation to the percentage of sugar that may be present, and although the presence of one or both of these bodies in the urine increases the gravity of the prognosis, still they are very often encountered without the occurrence of any especially adverse conditions. In the less

severe forms of acute diabetes, a judicious modification of the dietary often frees the urine from their presence. For example, the urine of a young man when admitted to the hospital contained thirty-eight grns. of sugar to the ounce along with a considerable quantity of diacetic acid and acetone, which speedily disappeared under the influence of a restricted diet. The percentage of sugar coming down more slowly. During several months' stay in the hospital, the diacetic acid did not return unless large quantities of fat were given, the sugar meanwhile diminishing and eventually disappearing altogether. He was discharged but returned in a few weeks with forty grns. of sugar to the ounce and with more diacetic acid than before. This again disappeared with a carefully adjusted diet. Even in the severe form of diabetes, diacetic acid may persist in the urine for months before the threatened coma comes on.

The difference of acetone in the urine of diabetics is of great clinical value and, when acetone and sugar are both present, the amount of the acetone is in rather direct correlation with the severity of the disease. It is generally conceded that acetonuria may result also from certain gastro-intestinal disarrangements. In each case large amounts of indican are found.

HAHNEMANN MEDICAL COLLEGE, PHILADELPHIA.

THE REGENERATION OF "OLD HAHNEMANN."

BY

WILLIAM W. VAN BAUN, M.D., PHILADELPHIA.

Part of an Address Delivered before the Homœopathic Medical and Surgical Club of Baltimore at the Annual Meeting, Hotel Emerson, December 9, 1915.

THE past six years has witnessed a complete revolution in medical education. So radical and drastic has been the elevation of the standard of requirements that out of 150 medical colleges in the United States, over 50 have closed their doors and more are preparing to do so. Fifty of the remaining colleges are rated as of inferior grade. Today, there are from 12,000 to 15,000 less men studying medicine than six years ago.

Today in Pennsylvania, before a man can apply for a license to practice, he must have had eight years at common school,

four years high school, of the grade of the Philadelphia Central High School, one pre-medical and four medical years, and a year as a hospital interne, 18 years in all. In addition, the Pennsylvania Law makes severe and specific requirements of hospitals before it will give their internes credit for the year's work.

The struggle for survival at Hahnemann has been a terrible one, and we are not yet on a secure foundation. But we have men, faith and energy. Our present great need is adequate endowment.

Five years ago, the future of Old Hahnemann looked dark indeed. We faced an adverse report from the Carnegie Foundation, a financial deficit and the smallest class in the history of the Institution.

Today, Hahnemann stands high in the first class of colleges, after repeated critical inspections, the President of the Bureau of Medical Education and Licensure, of Pennsylvania, an Old-School physician, openly states that the course at Hahnemann and the methods of teaching have no superior in the state, or even in the country, and very few equals.

The man who piloted our imperiled college through seas of trouble for four long anxious years, to safe waters, and who merits the lasting gratitude of every living Alumnus and friend of Old Hahnemann, is our former Dean, Doctor William B. VanLennep.

VanLennep, in addition to his rare surgical ability, is exceptionally intellectual and is an educator, second to none in the country. His energy is untiring, and his sustained enthusiasm leads him to splendid achievements. Wise in his day and generation, he faced the height of the agitation in medical teaching in the United States, not by berating the organizations or individuals leading this movement, or impugning their motives, but realizing that it would be out of the question to right the wrongs done Hahnemann by an equal publicity. He therefore set to work to obtain an equipment, and to build up a curriculum, which would meet the requirements of even the hypercritical; to eliminate the student who was not equal to such requirements, as well as the teacher whose teaching was perfunctory or below par, and insisted on preliminary qualifications which would absolutely fulfill the letter of the law of Pennsylvania, and meet the last word of the Council of Education of the American Medical Association, and all require-

ments by the Board of Regents of New York (6 to 8 full-time salaried teachers).

His decision made, he reached and strove for it, not counting the cost to himself. He did not grow tired, spent or faint-hearted. He kept at it until success crowned his efforts.

He amalgamated College, Hospital and Dispensary, so that each one is as much "College" so far as *teaching* is concerned, as the other.

He raised an endowment of Two Hundred Thousand Dollars. He turned all college finances into the hands of the trustees, experienced business men, who have placed the hospital on sound business principles.

He changed the entire curriculum to conform with the most advanced medical schools in the country.

He added to the equipment of the college, hospital and dispensary, by library and reading room (16,000 volumes), new laboratories and class rooms, which enables the college to carry out the new curriculum, costing nearly \$50,000.

He enforced the preliminary requirements in the spirit as well as in the letter of the law and increased the same.

He raised the standard to a point where a student should be safe with any State Board, and be worthy our profession.

His work was thoroughly and critically inspected and received the hearty approval of the Board of Medical Education and Licensure of Pennsylvania, and he demonstrated to its members that "Old Hahnemann" not only can comply with all their requirements for *practical* work, but can excel any medical school in the state in this respect.

All he asked was the support of his administration by word and deed, an adequate endowment, and fifty students a year worthy of Hahnemann and Homœopathy.

In June 1914, Doctor VanLennep resigned his office as Dean, retaining his full Professorship of Surgery, and Senior Surgeon at the Hospital and continues an active member of the Board of Trustees.

The regeneration of Hahnemann College seems to fall within three distinct epochs:

The first and greatest, involving the very existence of the College, was that of changing the curriculum and the proper equipment to carry it out successfully. This has been accomplished with splendid results.

2. A sustained campaign for new students.

3. An ample endowment of One Million Dollars.

The teaching corps is highly efficient and notably brilliant in many instances.

The curriculum is perfect and of the highest standard, and the equipment is ample for the full capacity of the College; 50 students each in the preliminary, and four medical years, or 250 in all.

THE SECOND PROBLEM.

Securing students under present-day conditions, is a specialty, demanding talent of a high order. Hahnemann has always been blessed by finding the right man, at the right time to fill the difficult and trying position of Dean. We are indeed fortunate in having Doctor Wm. A. Pearson willing to take up the crushing responsibilities of the office, as Dean. He is a man of splendid initiative and fine capacity, young, vigorous, hopeful and confident. He will bring his share of the work to full fruition and complete success.

Tireless and energetic, in addition to his duties as Professor of Chemistry and Dean, he has instituted an aggressive campaign for students. This is done by extensive correspondence, many personal conferences, and addresses with the new Hering lantern slides showing the "College at Work," at the various high schools and colleges in Pennsylvania, Maryland, Delaware and New Jersey.

The College Budget of Expenses is nearly \$35,000. At present, there is a deficit of \$5,000 annually, with fifty students in each of our five classes, or two hundred and fifty in all. The receipts from endowments, scholarships and fees will more than meet the requirements of maintenance.

The question of adequate endowment fills us with anxiety, but we are started on the right road and have abiding faith that the needed endowment will surely come.

I am here tonight to simply ask you for your sympathy and support by sending your students to "Old Hahnemann."

EDITORIAL

SOME IMPORTANT PROBLEMS TO BE CONSIDERED AT THE AMERICAN INSTITUTE OF HOMŒOPATHY.

WHEN the American Institute of Homœopathy assembles in Baltimore on June 25th a number of propositions that will vitally affect the future of the Institute and of the homœopathic profession throughout the country will come up for consideration.

Dr. Krauss, of Boston, expects to present a proposition relating to a definition of homœopathy. He has evidently given the matter a great deal of thought and has presented the proposition in some detail through the medium of the homœopathic journals. In his opinion it is very important to define homœopathy "as the therapeutic method of symptomatology indicated in medically curable constitutional diseases." We must confess that a careful perusal of Dr. Krauss's argument fails to convince us that there is anything practical to be gained by agitating this question at the present time. We entirely agree with the editor of the *North American Journal of Homœopathy*, that there is no imperative demand for a change along these lines and, in any event, that no change should be made without the consultation of homœopathic physicians throughout the world. It seems that the energies of the Institute might be employed to much greater advantage in developing the practical side of our art, rather than in hair-splitting verbal definitions. This is a day when men are more likely to be convinced of the truth of homœopathy by its practical results rather than by high-sounding phrases which occupied so prominent a place in that type of theological discussion so popular in the Middle Ages.

The reorganization of the business side of the Institute will be advocated in a plan proposed by Dr. Charles E. Sawyer. That such reorganization is necessary will be conceded by all familiar with the antiquated method now in vogue. We are not familiar with the details of the plan,

but knowing Dr. Sawyer's ability along business lines, we are confident that it will incorporate the most up-to-date methods of business efficiency. We presume, of course, that the plan does not do away with that oversight of the financial affairs of the Institute by the Board of Trustees that the law requires in an incorporate society.

Dr. Scott Parsons has prepared a plan for the federation of all state and local societies with the Institute. This is a matter of vital importance. Up to the present time our local societies have had to stand alone and any attack on the rights of homœopathic practitioners has to be fought entirely by the local physicians and the local societies. Contrast this system with the system employed by our friends of the dominant school. If anyone attacks a local organization of that school he soon finds that he has to contend with the united power and influence of the American Medical Association. We should be able to mobilize our forces in a similar manner so that instead of a number of widely scattered and comparatively feeble units, we could concentrate the influence of our national organization at the point where its assistance is needed. Delegates have been appointed by the presidents of the various State societies to meet as "A Congress of States" at Baltimore to consider this important matter. There are many problems to be met and overcome, not the least of which are those of a financial character.

It is hoped by those who are advocating the project, that some plan may be worked out whereby membership may be held in the County, State and National Society at a much lower cost than is possible at the present time. There seems to be no insurmountable difficulty to such a federation, and it is to be hoped that the first step in this important work will be consummated at the Baltimore meeting.

G. H. W.

HAHNEMANN GRADUATES MAKE PERFECT SCORE.

It will be a matter of satisfaction and of pride to the students and alumni of the Hahnemann Medical College of Philadelphia to learn from the report of the Council on Medical Education of the American Medical Association that

of the nineteen graduates examined by medical boards in nine States in the year 1915, every one passed. This record puts Hahnemann in the lead of all other medical colleges in Pennsylvania, the relative percentage of failures in each of which were as follows:

	Per cent.
Hahnemann Medical College of Philadelphia.....	0.0
University of Pennsylvania	6.6
Woman's Medical College of Pennsylvania	6.9
Jefferson Medical College	7.8
University of Pittsburgh	8.3
Medico Chirurgical College, Philadelphia.....	12.3
Temple University	18.2

Of prominent medical institutions of the dominant medical school situated in other States than Pennsylvania we find the percentage of failures given as follows:

	Per cent.
Harvard Medical School	6.5
Johns Hopkins University	3.5
Rush Medical College	2.1
University of Illinois	6.5
Columbia University	9.3
McGill University	6.3

The percentage of failures reported in homœopathic institutions are as follows:

	Per cent.
Hahnemann Medical College, Philadelphia	0.0
Hahnemann Medical College of the Pacific.....	0.0
State University of Iowa (Homœopathic Dept.)..	0.0
Boston University School of Medicine	4.0
Ohio State University College of Homœopathy...	5.0
Hahnemann College and Hospital, Chicago	17.0
University of Michigan (Homœopathic Dept.)....	20.7
New York Homœopathic Medical College and Flower Hospital	28.4
Kansas City Homœopathic Medical College	33.3

G. H. W.

A COMMUNICATION.

To the Editor of the Hahnemannian Monthly:

At a meeting of the Pennsylvania Bureau of Medical Education, held on May 19th at Harrisburg, the following resolution was passed:

"Candidates for examination, who graduate after January 1st, 1917, must produce evidence that prior to graduation from a medical school they have attended personally not less than twelve cases of obstetrics."

This increase in the requirements to twelve cases, instead of the present number of six, was only made after conference with the heads of the obstetric departments of every medical college in this State, and the personal and written assurance of each that they could and would put it into effect.

I am asked to present this information to the official journal of our School in this State.

D. P. MADDUX, M.D.

END-RESULTS OF 242 CASES OF SIMPLE FRACTURE OF THE FEMORAL SHAFT.—S. P. Martin (*Surg., Gynec. and Obst.* XXI, 6, 727.)—The author in an exhaustive study of 242 cases of fracture of the femoral shaft with a view of obtaining the end results, i. e., the condition of the patient at the present time as to function, length of leg and deformity.

The points investigated in each case were; (1) site of fracture, (2) the method of treatment, (3) the duration of extension, (4) the length of time in bed, (5) period spent in chair, (6) period spent with crutches and cane, (7) condition at time of discharge, (8) condition at present time, (9) permanent effect of injury as to earning capacity.

Of the 242 cases studied, 96 were under 16 years of age and 146 were adults.

In the conclusions he points out the following facts as shown by the tables in the article.

1. Ninety per cent of the fracture in children are followed by complete recovery and are mostly of the middle third. The average period of treatment with splints, crutches etc. was two to three months.

2. In the adult cases the fractures were mainly of the middle third. Recovery in 50 per cent. of the cases in the ages between 15—25 years. Men over 40 rarely regain their normal strength and activity. Disability usually the result of shortening and in proportion to the amount of shortening.

3. That the poor end-results of simple fractures as treated by extension show it to be either inadequate or poorly applied.

5. Efforts to obtain better results should be directed to: (1.) more weight applied in extension, (2) early operation when extension used is unable to correct the deformity, (3) systematic massage and passive motion for months, (4) longer use of crutches and education of the patient.

The end-results at the time of discharge from the hospital are often obscured by the use of the word Cured on the discharge card or record instead of stating accurately the amount of shortening, deformity etc.

J. G. SPACKMAN.

GLEANINGS

A PATHOLOGICAL STUDY OF SYPHILITIC AORTITIS AND ITS SEROLOGY.—Larkin and Levy undertake to correlate the pathological findings at autopsy with the results of the serologist's examinations. They selected the aorta for their particular line of investigation and made complete histological studies of forty-two aortas. Of these eighteen presented the microscopic appearance that has long been considered as syphilitic in origin. Seventeen of these had given a positive Wassermann during life. The authors hold that it is fair to assume from their results that ninety-nine per cent. of patients suffering from luetic aortitis would give a positive reaction in the serum. They explain the large discrepancy in the percentage of positive reactions obtained by different observers on the ground that the clinicians fail to differentiate between the various types of aortitis. These latter frequently include cases that represent an atherosclerotic process which is only occasionally specific. In performing the Wassermann reaction, Larkin and Levy think that they got better results with an alcoholic extract of guinea pig heart as antigen.—*Jour. of Experimental Med.*

TREATMENT OF DRUG ADDICTION.—Comparisons of several methods of treatment were made in a series of 147 carefully controlled cases of addiction by Joseph McIver and George E. Price (*Journal A. M. A.*, February 12, 1916). It was found that the original Lambert method was preferable to the customary gradual withdrawal of the drug; that the Lambert method without its free purgation was extremely unsatisfactory; that the use of belladonna was the least important part of the Lambert treatment, other sedatives such as aspirin, and the coaltar products giving equally good results with less tendency to delirium; that the adoption of a fixed dose for all patients was a very undesirable feature. The most satisfactory plan proved to be the gradual withdrawal of the drug, combined with free purgation and the use of sedatives of the coaltar group, and of stimulants as required for the individual patient. The larger the quantity of the drug used, the greater was the need for gradual withdrawal and the longer the time required for treatment. In the vast majority of the cases no form of treatment gave permanent results, the patients returning to the use of their drug more or less promptly after discharge. In no case should the patient be discharged in less than three months and many should be kept under medical treatment for a year or more. Upon discharge the patient should seek a complete change of scene and of occupation and associates.

BACTERIOLOGY OF CHRONIC PROSTATITIS AND SPERMATOCYSTITIS.—By Harry B. Culver.—Culver recovered organisms from seventy per cent. of his cases. Repeated examinations were often required before a positive culture could be obtained. The gonococcus was relatively infrequently

found, staphylococci and streptococci, alone or with other organisms, being the commonest by far. In four cases anaerobic cocci were isolated, the occurrence of which has been largely overlooked. In sixty per cent. of the patients, the organisms seemed to be specific as determined by the various methods of testing, including the production of focal reactions, agglutination, and opsonic readings. In a large proportion of the cases the chronic prostatitis or spermatoecystitis seemed to be the cause of an arthritis. The elevation of the antibody content of the patient's blood, combined with drainage of the prostate and vesicles by massage or otherwise, gave favorable results in many cases.—*Jour. A. M. A.*

ENDAMEBIASIS OF THE MOUTH.—By Kenneth M. Lynch.—In the course of an examination for the presence of *Endameba gingivalis* in some 400 charity hospital patients, pyorrhœa alveolaris in some stage was found in no less than ninety-eight per cent. of all the subjects. Regular examination for the amebas by all those attempting to treat pyorrhœa is recommended. The author divides the condition into a number of varieties and stages. The first is that in which the ameba is found in the mouths of persons presenting no evidence of any oral trouble other than uncleanness. In the next stage belong subjects whose gums appear normal, but in whom close examination shows beneath the margins small amounts of white, granular material containing the ameba. At this stage we are justified in expecting a cure from hypodermic use of one half grain of emetine hydrochloride daily until no ameba can be found or, for safety, a day or two longer; even in these cases reinfection is probable, and if it occurs, should be similarly treated. In early chronic pyorrhœa with atrophy of the gum margins and granular pus around and beneath the edges, a cure may reasonably be expected under hypodermic emetine treatment and careful removal by the dentist of the foreign material beneath the gums, provided that no irretrievable stripping of the cementum of the tooth has yet occurred. In the fourth stage, however, that of late pyorrhœa, with infection along the root of the tooth and the alveolar periosteum, producing pus pockets, Lynch feels that, unless combined medical and dental care solves the problem, we may expect little more than to hold the disease in check by intermittent treatment, especially where deep sinuses exist. As regards prophylaxis, he has little faith in ipecac mouth washes and relies chiefly on the proper use of a toothbrush, not hard enough to injure nor soft enough to be inefficient. *In vitro*, ipecac preparations, to kill the ameba, must remain in contact a few minutes at least, and this can hardly be the case in their practical employment.—*Amer. Jour. Tropical Dis. and Preventive Medicine*.

COST OF FEEDING THE NAVY.—Thomas F. Logan, writing in *Leslie's* for February 24th, states that the high cost of eating, that bugbear alike of the economist and housewife of modern times, is knocked into the proverbial cocked hat by the naval quarter-masters. To feed an enlisted man of the navy costs only thirty-six cents a day. And he is well fed, too. The navy ration consists of the following daily allowances for each person: One pound hard bread (biscuits); or one and one quarter pound fresh bread; or one and one eighth pound flour. One pound tinned meat; or one and

one quarter pound salt meat; or one and one quarter pound smoked meat; or one and three quarter pound of fresh meat; or one and three quarter pound fresh fish; or eight eggs; or one and three quarter pound poultry. Three fourths pound tinned vegetables; or one and three quarter pound fresh vegetables; or three gills beans or peas; or one half pound rice or other cereal. Two ounces coffee; or two ounces cocoa; or one half ounce tea. One ounce condensed or evaporated milk; or one sixteenth quart fresh milk. Three sixteenths pound dried fruit; or three eighths pound tinned fruit; or nine sixteenths pound fresh fruit (one ration of fruit is allowed with each ration of vegetables other than fresh issued.) Two ounces butter; four ounces sugar. Seven pounds lard are allowed for every 100 pounds flour used as bread. The following are allowed weekly in addition to the foregoing: One fourth pound cheese, one fourth pound macaroni, one thirty-second of a pound of mustard, one thirty-second of a pound of pepper, one fourth pound pickles, one fourth pound salt, one fourth pint sirup, one hundred and twenty-eight pounds of spices, one fourth pound tomatoes (canned), and one half pint vinegar or oil. This would be ample for the average householder.

THE TREATMENT OF CONSTIPATION IN SEDENTARY MEN.—By Howard S. Anders, M.D.—It is assumed at once that there are no associated and complicating organic diseases of the bowel or body generally, but that the constipation is purely functional, due to relative inertia because of the predominant factor of sedentary habit.

There are two rather extreme types of sedentary persons, however, in whom the regulation and prescription of remedial measures must be adapted differently; these are the slender delicate, nervous, fine fibred men, on the one hand, and the coarser, fat, phlegmatic, or even robust looking, on the other. These types will be referred to in the recommendations to follow.

Prophylactic.—While the chosen methods of treatment are being carried on, a certain hygiene of the bowel should be practised to avoid aggravation of the constipation and antagonism to these very procedures to a neutralizing or retarding degree.

Thus, a regular time for bowel movement should rigidly be adhered to; as before or after breakfast, preferably before, so that if much effort is made digestion shall not be interfered with when the stomach is full and needs an extra amount of blood to start gastric activity. Whether successful or not, the effort should be made persistently at the regular time, with moderately strong, rhythmic abdominal contraction for five to ten minutes; sometimes the patient wins out after three months of daily perseverance, and the bowel responds readily as well as regularly to the will.

Drinking one or two glasses of cool water on retiring and immediately after rising promotes a helpful flushing tendency for the morning evacuation.

It is known that a preliminary cup of coffee, or a smoke during the act of stool will induce bowel action in some instances. A nervous hurried attempt at defecation often defeats itself; after the first voluntary effort, and the initiation of the peristaltic waves of expulsion, reading while on the seat relaxes the sphincter more successfully to the succeeding waves,

and a more thorough emptying of the sigmoid and rectum is likely. Bending the abdomen forward and raising the thighs simultaneously for pressure against it aids in accomplishing a movement. Circular rubbing and pressure with the hands over the colon works for good also.

A cold water slap bath in the morning, patting the abdominal wall especially vigorously for a minute or two with the hands dipped in cold water at ten second intervals is advisable.

Tobacco should be interdicted absolutely in the nervous type of sedentary man.

Gymnastic or athletic.—It is not necessary but, if possible, one should exercise in a gymnasium every other evening. Walking all or part of the way to and from the working place is a prime requisite. Practising deep breathing, especially blowing out forcibly, almost explosively, with concentrated abdominal contraction, say a half dozen times every five or ten minutes while walking, is beneficial; or this may be done at night in front of an open window before retiring. At the same time, forward and backward, sidewise, and twisting body movements, the legs held tightly together meanwhile, contribute materially to increased motor power in the intestinal and belly wall musculature. Lying down flat on bed, floor, or couch, and raising the body from the hips without aid of the hands, persisted in for months, brings reward in some measure.

Undoubtedly, such outdoor exercises as tennis, swimming, golf, horse-back riding, axe wielding, gardening, medicine ball and hammer throwing, quoits, and the like, should be indulged in as much as possible to counteract the sedentary evil of constipation.

Dietetic. Eminently important, although tedious to arrange, is the food question. Meat should be at a *reducible maximum* of a liberal allowance once daily; at dinner in the evening. A moderately bulky cereal, vegetable, and fruit diet, according to the requirements, age, build, weight, digestive capacity, and appetite is to be aimed at.

It is a fact to be borne in mind constantly that not only does a three meal a day meat habit engender constipation, but in men of sedentary habit, who do not use all this protein, decomposition of the residue in the colon only adds to a vicious circle by local atony from the gaseous, putrefactive, and toxic distention and muscular degeneration, as well as general depression of neuromuscular power from the autotoxemia.

To me it has come about that an alliterative combination of C's in concord with the first letter of constipation is suggestive of the articles helpful in counteracting this defective function in sedentary men. Thus, eating proportionately freely of cabbage (including cole slaw,) well cooked, sauerkraut, cauliflower, carrots, celery, chard, chicory, corn, cress, cucumber in the vegetable class is of value. Other helpful C's are cantaloupe, cherries (cooked dried, as well as fresh,) cranberries, currants, coarse cereals, as oatmeal (rolled oats) and whole wheat (rolled or ground, with cream, cornmeal (yellow, coarse) mush. Cider is good, also, for bowel stimulus.

Eating of fruit between meals, such as apples and grapes, is to be recommended in some cases, especially for the stout. Plenty of celery, cress, and lettuce, is advisable for the nervous, anorexic, flatulent, anemic sedentary man. I advise the use of good buckwheat honey (dark), orange

marmalade, apple butter with whole wheat or bran bread and butter at breakfast, with or without a starter of stewed prunes (large fleshy ones, at least eight or ten), or baked or stewed apples with the skin on; at night, eating half dozen soft layer figs, dates stuffed with English walnuts, or raisins minus seeds. Dates chopped up with senna leaves and moulded into a loaf from which a plug can be cut and chewed on retiring have been found to be a fine aid to the morning stool. Coffee is good only in the morning. Tea is not advised; neither is alcohol. Codliver oil, olive oil, and a light mineral oil may be given two or three times daily to thin, constipated persons.

Psychical.—It is always desirable and usually imperative to convince the sedentary patient that his constipation can be cured by regulation and co-operation along the lines indicated; and that he can most probably be cured by or mainly by hygienic and dietetic means. And yet, persistent encouragement and engendering of hopefulness is often more substantially initiated if some medicinal aid of a harmless or mild but effectual nature is prescribed.

Medicinal.—For its tonic effect upon both liver and bowel perhaps nothing is superior to a good fluid extract of cascara, minims xv to xxx, with an equal quantity of glycerin taken before each meal according to results. Or, a tablet or two on retiring, containing grains i to ii of the solid extract, with grains one eighth each of extracts of belladonna and podophyllin. Sedentary men often need for a time, a course of calomel and salines once or twice a month.

One half grain doses of Phenolphthalein two or three times daily for a while, given in pill with licorice extract, is a good aid in some cases, especially in stout people. The a. b. c. and s. pill is too well known to need more than mention.

Agar agar helps in some of the cases with sticky, scanty stools. Powdered washed sulphur may be added in thirty to sixty grain doses.—*N. Y. Med. Jour.*

MEDICINE WITH ESPECIAL REFERENCE TO THERAPEUTICS IN 1915.—By Reynold Webb Wilcox, M.D.—Syphilis still claims attention and Williams points out matters for careful consideration. It is important to know that the poison is spread throughout the system long before the appearance of the secondary eruption, even before the appearance of the primary lesion as is shown by a positive Wassermann reaction, even in some instances on the day upon which the chancre was observed—in the majority of cases at the end of the third week. The frequency with which vital organs are attacked is really startling. Wertheim has found the spirochæta in all of fifty patients suffering from hereditary syphilis and in about one-half of one hundred and fifty patients suspected of having acquired syphilis. The localization of the spirochæta in the heart is more frequent than in the liver. The persistence of syphilis is quite as important; transmission of the disease twenty years after infection; the spirochæta in brain of paretics, in the spinal cord of tabetics, in the hearts of old syphilitics, and inoculations from these have been successful. We must revise our views of the period during which there is danger of transmission to others. A single negative Wassermann reaction is by no means indicative of cure. Alcohol

causes it to disappear for from one to three days. About five per cent. of patients in the active secondary stage are likely to give a negative reaction. It often happens that a reaction which has become negative under treatment may become positive so that a series of negative reactions extended over a considerable period of time are necessary to establish a positive cure. The administration of salvarsan may be followed in from two to seven days by a positive reaction and such a provocative dose is established as essential before cure is first established. It must be remembered that positive reactions are the rule in gout, relapsing fever, leprosy and the febrile stage of certain malarial infections, and often in acidosis, carcinoma, pemphigus, septic conditions, tuberculosis and trypanosomiasis. Now that a reliable preparation of Noguchi's luetin test is procurable its use is likely to be more extensive. The treatment may be formulated as follows: Begin with mercury, preferably an injection, or if this is not available, with a week of inunctions, then salvarsan or neosalvarsan, beginning with a small dose. The mercury increases the resistance of the body so that the first dose is rarely followed by a reaction. The salvarsan should be continued for from four to six weeks and mercury should be given, either between the doses of salvarsan or for six weeks following it. Then it is probably better to give smaller doses in salvarsan twice or three times a week as it is more rapidly eliminated and very little is left in the system after forty-eight hours.

In latent and tertiary syphilis there is no general agreement as to what is to be done; the intensity and duration of the treatment must be decided upon after a careful survey of the conditions. In the tabetic and parietic, salvarsanized serum may be employed according to the method of Swift and Ellis. It is possible to produce considerable improvement in most instances of tabes and in some paretics in the early stage and in a few instances to check the disease. In congenital syphilis the mother must be treated, especially during her pregnancy. Mercurial treatment before pregnancy is of little use in saving the child, while active treatment with this drug before and during pregnancy will secure a high percentage of healthy children. Salvarsan and mercury, begun early and continued energetically gives even better results. If the foetus is already infected it is doubtful if treatment of the mother will be of much benefit. Craig and Nichols propose as a standard of cure: one year without treatment, without any suspicious clinical signs, with several negative Wassermann reactions and no positive ones, and with a negative provocative Wassermann reaction and a luetin test at the end of the year. There should also be an examination of the spinal fluid. This is indeed rigorous but nothing less is satisfactory. Williams remarks that if we are perhaps less confident of obtaining a cure in old instances of the disease, we can promise them at least a better chance than they formerly had and in recent instances the chances of eradicating the disease are enormously multiplied.

Pyorrhoea alveolaris has loomed large as a causative factor in many well known pathological conditions and from the standpoint of the work of Bass and Johns showing the constant presence of the endamoeba buccalis (*E. gingivalis*, Gros) is important. The brilliant results following the treatment of amoebic dysentery by the use of ipecacuanha in the early days in India and eventually by emetine hydrochloride in the present suggest

the remedy for pyorrhoea. After success with this remedy hypodermically it was found that the interval use of the remedy was quite as effective so soon as the nausea, which even half a grain of emetine produces, could be obviated. The problem was merely to find a substance which would permit the alkaloid to pass through the stomach unchanged and to become active in alkaline intestinal contents. Such a substance was found in hydrated aluminum silicate with the result that the pyorrhoea itself is greatly benefitted and even cured in the larger percentage of instances. Relapses, which will occur in some instances, are quite as readily cleared up. It now remains to ascertain if really pyorrhoea has played such an important role in causing so many diverse diseases, and more extended observation will readily determine the fact.

The active immunization of hay fever according to Oppenheimer and Gottlieb may be brought about by injecting gradually increasing doses of pollen del extract to produce tolerance to the anaphylatoxin formed in the body, until a local reaction appeared at the site of the injection, keeping the doses stationary while no more reaction appeared and again increasing the dose. When the patient has become sufficiently immune, to warrant the discontinuance of the treatment, may be determined by either the complement fixation test or by the size, intensity and duration of the wheal produced by skin scarification. The latter method is probably easier in practice. The wheal produced by the initial vaccination is measured, its time of appearance and the duration noted. If the wheal is very small or does not appear the patient is sufficiently immune and may have mild or no symptoms at all. The best time to begin treatments, which should be at weekly intervals, is ten weeks before the suspected attacks. If the immunity does not prevail until the following year, the attack is likely to be mild and to require but few injections.

Bishop defines narcotic drug addiction as a definite physical disease condition, presenting constant and definite physical symptoms and signs, progressing through clean-cut clinical stages of development, explainable by a mechanism of body protection against the action of narcotic toxines, accompanied by inhibition of function and auto-toxaemia, often displaying deterioration and psychoses which are not intrinsic to the disease, but are the result of toxaemia, malnutrition, anxiety, fear and suffering. The treatment resolves itself into the rational care of each individual patient, supplying the drug of body need so long as it is necessary and in such amount as are useful in maintenance of body function but at sufficiently long intervals to minimize some inhibition effect. Inhibition of function is obviated by strychnine in sufficient dosages and by relieving the patient of suffering, worry, unjust criticism, fear and anxiety. Auto-toxaemia is removed by intelligent elimination. The removal recation is lessened by the use of alkaloids of the belladonna group, preferably hyoscine or scopolamine, and this medication is to be carefully watched.

Knapp points out that the pneumonias, secondary to the apoplectic state, are the result either of the vasomotor disturbance arising from the cerebral lesions, or the cardio-vascular, which cause the apoplexy, or of the stupor which permits the invasion of the bronchi and lungs by foreign substance, and micro-organisms. To combat these various pathogenetic factors therapeutic measures, should be undertaken with four different

objects in view: oral aseptics, stimulation of the circulation, stimulation of respiration and counteracting the action of gravity. Inasmuch as this complication is relatively frequent, attention should be called to the means whereby it may be obviated.

Hayden remarks that in gonorrhoeal arthritis the urethral tract and the glandular structures in anatomical relationship to it, should be carefully examined and receive proper local treatment and the urine rendered aseptic by hexamethylenamin in full doses, and still waters should be freely used, alcoholic beverages avoided and articles of diet that cause urinary concentration and irritation forbidden. In the acute stage the affected joints should be immobilized by splits, cold, wet dressings of aluminum acetate, mercury bichloride or lead subacetate, with possibly the internal administration of a salicylate. In the subacute or chronic stage massage active and passive movements, superheated dry air, the therapeutic incandescent lamp and the Oudin high-frequency electric current are useful. Of the utmost importance in this stage is the use of gonococcic vaccines or sera, autogenous if possible. The initial dosage is twenty-five million, with constantly increasing doses every three to six days. Antigonococcus serum, as vaccine, and Bier's hyperaemia may be occasionally very beneficial. Rarely the hydroarthrosis may require aspiration under rigid aseptic precaution and in the unusual instances of suppuration, immediate arthrotomy and drainage may be imperative.

Cornwall shows that in infective pneumonia specific chemotherapy has failed and that serum or vaccine treatment has not been effective. Nature has devised a method of treating this disease to which the physician, to be rational, must be subordinate. The diet is limited to quantities of protein and food to somewhat less than minimum health rations, it is fluid easy of digestion, supplies salts needed for the body and is non-putrefactive. Specifically this consists of milk, barley water, orangeade or orange-juice, milk, sugar and water, and sodium chloride and calcium chloride. After defervescence the diet does not differ much from that generally accepted. The bowels are kept free by soap enemas, castor oil or other mild vegetable (never a saline) cathartic. Symptomatic treatment is reduced to a minimum partly as a matter of preference and partly because the method of the author prevents to some extent the occurrence of symptoms.

The transfusion of blood often interests the internists who need the simplified procedure. Lewisohn found that two-tenths of one per cent. of sodium citrate added to human blood prevents clotting for at least forty-eight hours. If the blood treated with sodium citrate be transfused there is no retardation of the coagulation time or the blood of the entire body by reason of the sodium citrate present in the transfused blood. Finally, the sodium citrate thus introduced into the circulation is not toxic. Transfusion has become a simple matter; the blood of the donor is discharged through a canula into a glass jar containing the sodium citrate solution and stirred with a glass rod to procure admixture with the sodium citrate solution until the requisite quantity is procured. It is then poured into a glass funnel connected by tubing with a canula inserted into the recipient, the whole procedure requiring about five minutes.

Burnham, in presenting the results of a study of tuberculin in surgical tuberculosis, with especial reference to the uses of sensitized bacillary

emulsions, concludes that these emulsions have apparently the same clinical action as the ordinary bacillary emulsion and that the difference in reaction is not appreciable, that it is a powerful therapeutic agent, but its contra-indication and limitations must be kept in mind and finally in surgical tuberculosis in which the benefits of climatic treatment and hospital or sanatorium care are not available, the results of tuberculin are favorable in the majority of instances.

Leszynsky advocates the use of perineural infiltration with physiological saline solution in sciatica. The amount used is from 2 to 4 ounces at a temperature of 95 degrees to 100 degrees F.; the interval thirty-six hours to a week before repetition; the average number required is three. It is not intended that the nerve sheath should be entered by the needle, but that infiltration of the nerve and the surrounding structures should be produced. Since sciatica, whether a symptomatic neuralgia or the result of a perineuritis is admittedly a very intractable and painful affection, often persisting for months or longer, this method of relief merits adoption inasmuch as in the majority of instances it rapidly relieves the pain, and the sufferer is soon enabled to return to his customary vocation.

Marshall and Gilchrist have re-investigated the time honored spiritus ætheris nitrosi and concluded that the contained aldehyde and paraldehyde merely give their characteristic taste and odor to the preparation and have no other action. The amount of alcohol can have little action other than a local and carminative one and in this it is probably aided by the other substances present. The diaphoretic and diuretic actions, which are obtained under favorable conditions are mainly due to its vasodilating effects, due to ethyl nitrite as the ethyl nitrite. The rapid loss of ethyl nitrite which follows the addition of water suggests, that to obtain the best effects, it is necessary to prescribe the remedy as such and to dilute it just before administration.

However much scepticism one may feel in regard to the beneficial effects of radium upon malignant growths it is well to encourage further study. Abbe, with the assistance of Pegram, has separated the alpha, beta and gamma rays by the use of a magnetic field. He concludes that beta rays separated from radium are demonstrated to be the efficient force, most active against living cells, that these rays are electrons, discharged from the radium atoms, being negative electrically and carried into certain types of disorderly growing cell tumors reduces them to orderly growth, and claim is made that this checking force is established.

Such then has been the course of medicine during the year just closing; a progress substantial, even if gradual, and one of which the practitioner esteems himself fortunate that he may avail himself of the results. The exponents of internal medicine are basing their practice on sure foundations and are indeed contributing their share in the relief of suffering humanity.

TUBERCULOSIS OF THE KIDNEY.—We are now able to recognize this disease at an early stage, i.e., when only the kidney has been affected, through the use of the cystoscope and ureteral catheter. The cystoscope will tell us whether we are dealing with the kidney or bladder disease as the source of the pus.

In many cases, the bladder changes are not specific of tuberculosis,

whereas in others they are so characteristic that one can make a diagnosis from the cystoscopic examination alone, without ureteral catheterization. The latter, aided by pyelography to determine the extent of the destructive changes in the ureter and kidney is of great confirmatory value.

In the case of closed tuberculosis pyonephrosis (where no communication exists to the bladder) the diagnosis by our newer methods is of course impossible and must be made by other means. Ordinary radiography is of but little aid in the diagnosis of tuberculosis of the kidney.

I can highly recommend the Forssell method in examining for tubercle bacilli in the urine. The urine is collected for twenty-four hours and then the sediment centrifuged for two or three hours before being stained.—Daniel N. Eisendrath in *The Chicago Medical Recorder*.

OBSERVATIONS UPON THE ETIOLOGY AND TREATMENT OF HEART DISEASE.—In the *Louisville Monthly Journal of Medicine and Surgery* for December, 1915, White of Boston reaches these conclusions:

1. The male sex has been found to be more subject to auricular fibrillation, auricular flutter, heart block, and alternation of the pulse than has the female sex.

2. The older the patient with heart disease the more subject he has been found to be to serious abnormalities of the heartbeat.

3. Auricular fibrillation and alternation of the pulse occur at the same ages, most frequently in the fifth and sixth decade.

4. Rheumatic hearts usually show normal mechanism or auricular fibrillation, much less commonly pulsus alternans.

5. A considerable percentage (36) of syphilitic hearts show alternation of the pulse; few were fibrillating.

6. A patient with cardiac insufficiency in the course of cardiorenal disease is very apt to show pulsus alternans, either constant or more frequently after ventricular premature beats.

7. Cardiosclerosis often results in the production of fibrillation and alternation.

8. Hyperthyroidism of long standing is sometimes attended by auricular fibrillation.

9. Alcohol, tobacco, tea, and coffee appear to play no direct part in the production of serious disorders of the heart-beat.

10. Two-thirds of the patients with auricular fibrillation, one-half of those with alternation of the pulse, and one-third of those with normal mechanism in his series, showed physical signs of cardiac insufficiency.

11. Digitalis was used in 88 per cent. of these decompensated cases, almost always in the form of pills of standardized leaves. Intravenous medication was used in urgent cases only.

12. Morphine was given beneficially in nearly one-half of these patients with physical signs of insufficiency, often one dose sufficing to give the patient the first comfortable night in weeks.

13. Venesection was found useful in a few urgent cases.

14. The change in diet to five small meals daily was often much appreciated by the patient.

WHAT STOMACH SYMPTOMS JUSTIFY SURGICAL INTERVENTION.—Tinker in the *New York State Journal of Medicine* for December, 1915, states that a study of the results of the most experienced workers in this field leads to the conclusion that surgical intervention is justified in a large number of cases on the basis of a carefully taken history alone. When the history brings out repeated attacks of indigestion with intervals of good health, severe epigastric pain, frequent vomiting, hunger pain and relief by taking food, unrelieved by a reasonable number of weeks of medical treatment, operation seems justified. If, in addition to this, the x-ray shows delay in emptying the stomach from partial obstruction, deposit of bismuth in chronic perforated ulcer or great irregularity in stomach contour, the indication seems still stronger. If gastric contents analysis shows hyperacidity in ulcer cases or absence of free hydrochloric acid with lactic acid in cancer cases, this is also strongly confirmatory evidence. Blood, though not so frequently present, either vomited or obtained microscopically or shown as occult blood in the stools, is also valuable evidence.

While it may be impossible to arrive at a definite diagnosis in many of these cases, it is almost always possible, Tinker believes, to say that serious trouble is present inside the abdomen, and the symptoms are of sufficient gravity to justify surgical intervention. Almost always it will be possible to determine with some degree of certainty whether the stomach and duodenum are at fault or whether the stomach symptoms are caused by lesions elsewhere in the abdomen. All modern means of diagnosis should be employed and the lesion located as definitely as possible so that in the majority of cases the operation is not really exploratory, but we may be able to attack the lesion causing the symptoms without undue handling of the intestines or manipulation inside the abdominal cavity.—*Therapeutic Gazette*.

SODIUM HYPOCHLORITE IN THE TREATMENT OF INFECTED WOUNDS.—By Henry D. Dakin.—A preliminary comparative investigation of various antiseptics was made, the concentration required to kill staphylococci suspended in water, with or without the addition of blood serum. Sodium hypochlorite proved highly efficient, and is preferred by Dakin to such standard antiseptics as iodine, mercury bichloride, and silver nitrate for a variety of reasons, especially its relative lack of irritant power when suitably prepared. As commercial sodium hypochlorite shows great variation, Dakin prepares it himself by a definite procedure. In ten litres of tap water are dissolved 140 grams of dry sodium carbonate (or 400 grams of the crystalline salt) and 200 grams of good quality chloride of calcium. The mixture is well shaken up and after half an hour the clear liquid separated by siphonage from the precipitated calcium carbonate and filtered through cotton. To the clear filtrate forty grams of boric acid are added, and the solution thus obtained is ready for use. The solution should not be kept longer than a week. The object of the boric acid is to keep the solution neutral and nonirritating by neutralizing the alkali normally liberated by dissociation in the pure hypochlorite solution. Stronger solutions, to be diluted before use, may also be made, phenolphthalein and litmus being employed as indicators of the amount of boric acid to be added. The

solution appears to sterilize the wounded tissues with which it comes in contact, assists in the solution of necrosed tissue, exerts a slight hemostatic effect, and has no noxious action. Simultaneous use of other antiseptics, as well as of alcohol or ether, is to be avoided.—*N. Y. Med Jour.*

THE INDICATIONS FOR OPERATION IN GLAUCOMA.—By William Campbell Posey, M.D.,—Secondary glaucoma will not be considered in this paper. Indications which follow apply to primary glaucoma only.

Operation should be performed:

1. In all cases of acute and subacute glaucoma and in all chronic cases on the manifestation of any inflammatory glaucomatous symptoms.
2. In all cases of chronic glaucoma in which there is doubt of the patient's cooperation in the persistence in the myotic treatment throughout the remainder of life. This includes practically all hospital cases and such private cases as may be of a weak and vacillating disposition.
3. In all cases of chronic glaucoma which reside at such a distance from proper ophthalmic care that they are unable to report at sufficiently frequent intervals for the supervision necessary in the proper and safe carrying out of the myotic treatment, or for operation in the event that inflammatory symptoms arise.
4. In chronic cases under fifty-five years of age, when the field of vision and central vision are good, an operation upon the most affected eye is advised, myotics being employed in both the operated and unoperated eye for the remainder of life. Operation upon the second eye should follow, if subsequent observation shows that vision is maintained better in the operated than in the non-operated eye.
5. In all cases of chronic glaucoma, without regard to age or the development of the disease, in which myotics have been given a faithful trial for at least six weeks or two months, as evidenced by the constant maintenance of pupillary contraction to almost pin-point size, and in which vision and the field of vision show progressive deterioration.

Cyclo-dialysis is preferred in all cases in which operation is demanded if there be a hemorrhagic tendency or the field of vision is very much reduced. Iridectomy is reserved for all other cases. The trephining operation has been relinquished, as it appears to be a more dangerous procedure than iridectomy, on account of the opacification of the lens which follows in not a few cases, either immediately or remotely after the operation. Furthermore, even in cases in which these complications do not arise, it has not been proven that the visual results after trephining are any better than those obtained by a properly executed iridectomy.

In all cases not included under the five headings given above, myotics should be employed with great zeal and persistence four times during the day. The maintenance of vision by this method does not warrant the gloomy prognosis which is so often rendered in cases of chronic glaucoma.—*Therapeutic Gazette.*

THE PREVALENCE OF SYPHILIS.—By Edward B. Vedder, M.D.—*Therapeutic Gazette*.—It should be unnecessary to emphasize the importance of determining the prevalence of syphilis. At the present day syphilis is very generally accepted as the real cause of certain conditions such as paresis, locomotor ataxia, and aneurism of the aorta, and as the probable cause of a great variety of cardiac, circulatory, and other conditions whose etiology has hitherto been somewhat vague. The determination of the prevalence of syphilis therefore becomes a matter of vital interest to every practical physician and surgeon, since the knowledge so obtained will aid in the elucidation of the problems which he meets in his daily practice. Furthermore, if syphilis is ever to be brought under sanitary control like other infectious diseases, the first requisite is that we should know the exact incidence of the disease.

The writer has been able to make an investigation into the prevalence of syphilis among the men of the United States army, from which it is believed certain deductions as to the prevalence of syphilis among certain parts of the civil population may be drawn. The results of this investigation have been published as Bulletin No. 8, War Department, Office of the Surgeon-General, entitled "The Prevalence of Syphilis in the Army." An endeavor will be made here to present the results of this investigation in condensed form, but laying particular stress upon the method and reasoning employed in estimating the prevalence of syphilis in certain groups of the civil population.

The Method Employed.—The following groups were studied: (1) Those men just entering the service. (2) Those men who had been in the service some time. (3) Those men who had recently left the service.

The study of the group of men just entering the service is most important from the view-point of this paper, and is the only group considered here because it is from this group that the conclusions as to the prevalence of syphilis in civil life are drawn. This group consisted of 1019 newly accepted recruits who become the enlisted men in the army, and 621 cadets at West Point who become commissioned officers. In the case of these recruits and cadets, no clinical evidence as to the existence of syphilis was obtainable, and the prevalence of syphilis is estimated on the basis of the Wassermann survey alone. Approximately half of the recruits came from the Middle West and were sent to Columbus Barracks, Columbus, Ohio, and half from the East and were sent to Fort Slocum, New York. Blood specimens were taken from all newly accepted recruits at these points without selection, and a Wassermann was performed. With regard to the cadets, a Wassermann reaction was performed on every cadet at West Point.

The Interpretation of the Wasserman Reaction in this Work.—The two plus system of readings was used. All double plus cases were counted as undoubted syphilitics, all plus reaction were counted as probable syphilitics, and the total of the known syphilitics and double plus and plus cases was used as the estimate of probable syphilitics. All of these figures were reduced to a percentage basis with the total number of men examined.

This method is considered justifiable and even conservative. For it is well known that when the Wassermann reaction is applied to all classes of syphilitics, a large percentage will give a negative or plus minus reaction.

This is due to the fact that the Wassermann is frequently negative in primary, tertiary, and so-called latent cases. The results obtained by this method are therefore an underestimate rather than an overestimate of the actual prevalence of the disease, if the results of the Wassermann are accepted. All those who believe in the reliability of the Wassermann reaction when properly performed and interpreted will believe that the positive results so obtained afford an indication of the prevalence of syphilis in the men examined. Those who do not so believe will not accept my statistics. I cannot discuss the value of the Wassermann reaction in a paper of this length, and can only state that the longer the Wassermann reaction is used, and the more accurately its findings are checked with the clinical condition, the stronger becomes our faith in the findings of the positive Wassermann as an indication of syphilitic infection.

As a result of careful investigation the following conclusions were drawn as to the prevalence of syphilis in the civil population:

1. We may estimate that about 20 per cent of the young adult male population, of the class from which the army is recruited, are infected with syphilis.

2. We may estimate that about 5 per cent of the young men in our colleges are syphilitic.

3. This study confirms observations that have already been published indicating that syphilis is so prevalent among negroes that it is possibly the greatest single factor in the production of disability and high mortality rates among the race.

4. The high percentage of syphilis among Porto Rican soldiers indicates that syphilis may be one of the important causes of disability among native Porto Ricans.

5. Since syphilitic infection is so common, is productive of so much disability, and has so far entirely evaded sanitary control, it is believed that syphilis is a greater menace to the public health than any other single infectious disease, not even excepting tuberculosis.

DISCUSSION OF CONCLUSIONS.

Inasmuch as the estimate of the prevalence of syphilis among the accepted recruits was only 16.77 per cent, it may be asked on what is based the estimate of 20 per cent for the young adult male population of the class from which the army is recruited. It must be remembered that these accepted recruits are picked men, having passed two physical examinations, which were so severe that approximately 83 per cent of all applicants were rejected. There is statistical evidence to the effect that of these men rejected, approximately 2.3 per cent were rejected for manifest syphilis. The accepted recruits among whom the prevalence of syphilis is estimated to be 16.77 per cent are therefore the cream of the applicants. None of these men were syphilitic so far as could be determined by a physical examination, while among those rejected between 2 and 3 per cent showed manifest lesions of syphilis, and as a group was generally inferior physically. It therefore appears conservative to estimate that 20 per cent of the young civilian males who apply for enlistment in the army are infected with syphilis.

According to the Wassermann survey on the cadets at West Point, we may estimate that from 2 to 5 per cent are syphilitic, although there were no cases at all presenting clinical evidences of syphilis. The young men from any of our civil colleges cannot compare physically with cadets at West Point for the obvious reason that no selection based on a physical examination is practiced, and they are subject to no such discipline. All who have known such students know that there is a certain percentage of them who indulge either occasionally or regularly in illicit intercourse. Under these circumstances it is certainly fair to assume that the percentage of syphilis among these college students is higher than is the case for the cadets. If the cadets at the lowest estimate have only 1 to 2 per cent of syphilitics, it is certainly fair to assume a prevalence of 5 per cent among college students. As I am sure the figures for the cadets are higher than 1 to 2 per cent, I feel that the estimate of 5 per cent for college students is very conservative.

I shall not dwell long upon the estimate of the prevalence of syphilis among negroes. All those physicians who have long experience with negroes will agree with me that my estimate is well within the facts, and many will feel that it is hardly adequate. With regard to the latter point, I would simply state again that so far as the negro enlisted personnel is concerned, we are here again dealing with picked men, and that I am sure from other figures which I possess, and hope to publish later, the incidence of syphilis among negroes in civil life is even higher. The wide dissemination of syphilis among the negro race is not appreciated by those who derive their statistics from a comparison of hospital statistics for the white and colored races. This is simply because the colored man, on account of both ignorance and poverty, is not nearly so likely to consult a physician or go to a hospital as is the white man. The army admission rate for syphilitics is given by Boas (*Social Hygiene*, 1915, I, 610) as 3.2 per cent for negroes and 2.2 for whites. For the reason above quoted these figures give absolutely no idea as to the relative prevalence of the disease in the two races, and all comparisons or judgments based upon such figures will lead to erroneous conclusions as to the prevalence of syphilis in negroes. I personally feel quite certain that my estimate of 36 per cent for colored enlisted men is conservative, and that it is fully 50 per cent among the same class of negroes in civil life, and furthermore, that the incidence of syphilis among *negro women* is as high or higher than among the men. This is not true of the white race, where among women of the same class the rates are much lower than for the men. I hope later to publish statistics that will fully corroborate these statements.

In connection with these estimates, several words of caution are advisable. The estimates only apply to certain classes, for the most part supposedly healthy young males. They are therefore estimates of certain definite classes of the population, and any attempt to apply these figures to the population as a whole will lead to error. Nothing is at present known about the prevalence of syphilis in the population as a whole, but I do believe it can be estimated in certain groups. It must therefore be remembered that these figures are not to be applied to women and children, for whom they would be far too high. Equally they should not be applied to the sick in hospitals. It is obvious that the percentage of syphilis will be

higher among those sick than among those presumably well. Young white males of the laboring class and artisan class in the hospital should therefore be expected to have a higher percentage of syphilis than 20. Furthermore, the evidence is convincing that the incidence of syphilis increases in any group of the population with age. This is undoubtedly because only a few patients are really cured, and the older the individual, the more frequent have been the opportunities for acquiring the infection.

It is also important to remember that the incidence of syphilis varies with the class or station in life of the group examined. The disease is certainly not so prevalent among educated and refined men as it is among artisans and laborers. I do not know whether wealth, education, and culture give a man more moral stamina or not. One would think the latter two certainly ought to. But even supposing that the morals of this class of men are no better than those of laborers, the fact yet remains that the former class are much more apt to escape venereal disease because when they do indulge in vice they are able to select their companions with more care; they are much more apt to use some method to prevent infection, and are certain to lay more stress upon cleanliness; and if they do become infected, they are much more apt to secure adequate treatment from a physician of skill, since they have both the intelligence to perceive the necessity for such treatment and the means to pay for it.

The facts are in accordance with this theoretical reasoning. The young men at West Point do not differ materially in age from the recruits. But they come from a much better class of the population, and at most only have 5 per cent of syphilitics as compared with 20 per cent in the class of young men who apply for enlistment.

Again, it must not be supposed that it is claimed that all of this very large number of cases of syphilis are infectious and are therefore a sanitary menace to the community. Nothing could be farther from the truth. While we now know on the basis of scientific experiment and clinical observation that syphilis *may* be transmitted during almost any stage of the disease, yet practically the vast majority of infections are acquired from individuals in the primary or early secondary stages. Such cases, which truly are a menace to the community, constitute not more than three per cent of the male population at any one time, if we may estimate the prevalence of primary and secondary syphilis in the civilian community on the basis of admissions for these conditions in the army.

Our last conclusion, to the effect that syphilis is a greater menace to the public health than any other single disease, therefore needs a little interpretation. It is not a menace in the sense that cholera or typhoid is a menace; that is a disease that may become epidemic and attacks the innocent and guilty alike by most devious and frequently inexplicable methods. It becomes a menace because although we can prevent cholera and typhoid, no practical method that the moralist and the sanitarian can both indorse has yet been adopted for the prevention of syphilis. As a result, the 3 per cent of males, not to mention the prostitutes who suffer from syphilis in the infectious stage, are absolutely uncontrolled, and may transmit their infection without let or hindrance. This fact and the great difficulty of curing the disease explain the wide prevalence of syphilis. However, a disease would not become a sanitary menace even though it

were very prevalent, if only it were innocuous. But syphilis not only is not innocuous, *but is a very fatal disease*. This fact is seldom sufficiently emphasized, and is quite contrary to general opinion. This is because death certificates seldom give syphilis as the cause of death for obvious reasons. In the past six months I have seen two deaths among the comparatively small number of cases referred to me by physicians for a Wassermann test. One died of cerebral syphilis as the result of an infection acquired only ten months previously, and one died of hemorrhage of the stomach. The latter was a Wassermann fast case who was under treatment for syphilitic ulceration of the stomach. Such fatalities are common, but are called by euphonious names, such as apoplexy, arteriosclerosis, aneurism, heart disease, etc., etc.

This increase has been so marked that in 1912 the death-rate for organic heart disease exceed the rate for all forms of tuberculosis. Now when it is known that a considerable proportion of apoplexy is really syphilis, that nearly all aortic lesions of the heart and a considerable proportion of cases of so-called myocarditis are really simply expressions of syphilis, is not the influence of syphilis apparent in the death-rate? And if to this we add the cases of tabes, paresis, and the still-births that are syphilitic, can it be doubted that in spite of general opinion, syphilis is a very fatal disease? This constitutes its menace from the public health standpoint. Syphilis is uncontrolled, it is very prevalent, and it is very fatal. The statement that syphilis is a greater menace to the public health than any other single infectious disease has appeared to some to be an exaggeration. I think the statement is not only strictly correct, but is demonstrable by sound statistical evidence.

TYPHOID FEVER AND APPENDICITIS.—By Georg Wolfsohn. (*Berliner Klinische Wochenschrift*.)—The differential diagnosis between typhoid fever and appendicitis has been found hard at times, but since the introduction of general prophylactic vaccination, the difficulties have been greatly increased. Wolfsohn has separated off a clinical group of cases in which the onset of symptoms was slow with complaint of headache, pains in the extremities, and a sense of exhaustion. More or less refractory diarrhea was usually present, with some degree of abdominal distress. Blood was frequently observed in the stools. The patients seemed to be in good general condition, had slightly flushed faces, coated tongues, and low fever with pulse rate in close correspondence with the height of the temperature. Physical examination showed the abdomen to be soft and free from rigidity or resistance and to be insensitive to pressure, except in the region of the appendix, where it was markedly tender. Bacteriological examinations of the stools, the urine, and the blood were negative for typhoid bacilli. Operation revealed slight involvement of the appendix only, consisting of small hemorrhages into the mucosa or superficial erosions. From the interior of several of these appendixes typhoid bacilli were cultivated, either in pure culture, or along with organisms of secondary infection. The condition described as yielding a characteristic clinical picture simulating both typhoid fever and appendicitis was observed only in immunized persons. It is suggested that the localization of the organisms occurred as a result of their invasion by way of the blood stream and that they produced a modified and low grade inflammatory reaction through opposition to infection on the part of the tissues of the host.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY DR. DONALD MACFARLAN
PHILADELPHIA

CASES OF INTEREST.—In a recent issue of the *Pacific Coast Journal of Homocopathy* Dr. William Boericke cites two remarkable cases of cure, one from the action of *vipera*, the other from that of *sepia*. The former is reported by Dr. Frederick M. Dearborn, whilst the latter came under the care of Royal S. Copeland, the dean of the New York College.

Case (1.) A woman of forty-two years, with an *eczema rubrum* of the right leg of three years duration, secondary to a varicose condition of the same member and of six years duration, found it impossible to continue her work as clerk because the burning and itching of the skin became so aggravated. A sensation of bursting developed as soon as she had been seated for a half hour or so. Relief was experienced by elevating the leg, hence her sleep was in no wise interrupted. Even walking afforded a temporary relief. *Calcarea fluorica* and *fluoric acid* were given with some benefit, except that the burning sensation still remained. *Vipera 12x* caused a complete disappearance of this symptom within ten day's time, and although the patient still has the varicose veins, the secondary *eczema* has improved from the lessened pressure. No rubber stocking or bandage was used because of the intolerable heat. I might add that other remedies have been used since, but there has been no return of the bursting sensation during the past eight months.—Frederick M. Dearborn.

Case (2.) The patient was about 52 years of age. She came to me as the next of a long line of oculists who had fitted endless pairs of glasses. She had *astigmia*. This was corrected for distance, and glasses considered proper for reading were likewise prescribed. Two months of the usual torture followed. I then took her blood pressure and found it to be 165. This is not excessive, of course, but yet it seemed to me capable of causing all her head and eye symptoms. The urinary and physical examination by her physician had revealed nothing out of the ordinary. On finding high tension I went further into the history and symptoms.

Three years ago the patient had acute mania which lasted for some time. After recovery from that she continued excessively nervous. The slightest nervous shock or excitement caused rapid and painful action of the heart. Even thinking of disagreeable things increased the action of her heart until the patient became painfully conscious of it. There was marked mental depression, unhappiness and a suicidal tendency. The patient complained of dizziness on looking down and on walking. She was

not sure of her hands and dropped things. The characteristic hot flushes were conspicuous and perhaps decided the prescription. Anyhow sepia was prescribed on December 10th last. On December 20th the blood pressure, a tangible symptom had fallen to 140. A week later it was 130. Every untoward symptom had disappeared, and this day, my patient is a happy, cheerful and enthusiastic woman, whose viewpoint has been quite reversed, and who is a daily exponent of the virtues of homoeopathy.

Naturally, I am wondering if a modern proving of sepia would not reveal increased pressure as one of its characteristic symptoms. Possibly its value in the climacteric lies in its control of this condition. At least, in this patient, sepia, symptomatically prescribed, was far more potent than the product of the test case.—Royal S. Copeland.

THE SPHERE OF NUX VOMICA.—Nux vomica is preeminently the remedy for many of the conditions incident to modern life. It is the greatest of polycrests because the bulk of its symptoms correspond in similarity with those of the commonest and most frequent of diseases. It is frequently the remedy first indicated after much dosing, as it establishes a kind of equilibrium of forces, thus counteracting predominant drug effects.

The type most suitable for its action is that patient which is rather spare in stature and of a nervous bent, that sort of person who is thin, active and irritable. He does a great deal of mental work. He has mental strains and leads a sedentary life, found in prolonged office work, overstudy, and close application to business, with its cares and anxieties. This indoor life and mental strain seeks stimulation. Coffee and wine, possibly in great excess play a part or he may hope to quiet his excitement by sedation from tobacco if not already the victim of some drug habit such as morphia or cocaine. These things are associated with other indulgences; at table he takes preferably rich and stimulating food; wine and women play their part to make him forget the close application of the day. Late hours are a consequence and a thick head, dyspepsia, and an irritable and quick temper are the next day's inheritance. Now, he reaches out for some cathartic, liver pill or mineral water, insensibly slipping thereby into the *cathartic habit*, which still further complicate matters.

Since these frailties are more yielded to by men than women, nux vomica is preeminently a male remedy. These conditions produce an irritable nervous system, hypersensitive and over-impressionable to a degree, which nux vomica will do much to soothe and calm. It is especially adapted to digestive disturbances, portal congestion, and hypochondriacal states depending thereon. *Convulsions, with consciousness; worse upon contact and upon moving. A zealous and fiery temperament.*

WILLIAM BOERICKE.

THE CENTENARY OF HOMOEOPATHY.—Organized homoeopathy has just entered upon the second century of its existence. Three or four generations of men have upheld, taught, and practised its principles. Thus far not one of its essential doctrines have been repudiated and all are capable of verification at any time, each receiving illustration and confirmation by the progress of science about us. And the source of this progressive

vitality is a direct consequence of *the appeal to systematic observation, experiment and experience*. This is the demonstrable vindication to scientific method in the work of research, by a method purely inductive and practically applied.

Thus Hahnemann was the very first modern, at least in the highest sense, and the scientific methods inaugurated by him, reveals the extraordinary *modernism* of the Hahnemannian system. When he came upon the scene, he entered a medical world wholly foreign to our present day conceptions, a medical world beset with the insanity of wholesale blood-letting, drugging, setoning, blistering, and purging. The humorously grim retort of a patient in a French hospital during that lamentable era was only too true "*Laissez moi mourir, mais ne me tuez pas.*" Equally grim was the fact that General Washington had the distinction of being bled to death for a sore throat.

Not then ruled the present day spirit of this age which has demanded facts of observation and a rigid and logical deduction therefrom to guide practice, but a weird metaphysics was abroad in that time which absolutely dominated medical thought. Therapeutic chaos formed the environment to this setting. Hahnemann's appeal, therefore, to *observation and experience guided by law* and the elimination of all mere theories, however alluring, as a basis for therapeutic action, was the first great step and it was the continued adoption of this strictly modern attitude on the part of Hahnemann and the young school that he founded that ensured its vitality, its capacity for continuous growth and development, and its permanency. And was it not the *neglect* of this modern scientific method that produced the anchorless drifting about in the therapeutic sea, when every passing pathological theory found a correspondingly ephemeral and ineffective therapeutic method, only to be displaced by the next pathological favorite that rules for a time? Hence the therapeutic nihilism on the one hand and the use of palliative medication on the other, and the wave in its wake of various medical fads that threaten to wipe out all sane and rational habits of thought. Hence, too, the turning of the brightest minds to specialism, the outgrowth of a wonderful development in surgery, with its brilliant and concrete results, the only gratifying compensation for the loss of accurate medical knowledge in the treatment of disease. Once acknowledge the operation of the law of cure through Hahnemann's law of symptom-similarity, and you are in the possession of the key to unlock the hidden powers of every medicinal substance the world over, and see its proper and effective relation to whatever morbid states you may meet with—it is the open sesame to decent and effective medical practice.

WILLIAM BOERICKE.



DR. J. M. HEIMBACH
PRESIDENT OF THE HOMOEOPATHIC MEDICAL SOCIETY OF THE
STATE OF PENNSYLVANIA

THE HAHNEMANNIAN MONTHLY.

JUNE, 1916

THE ANNUAL REPORT OF THE DEAN OF THE HAHNEMANN MEDICAL COLLEGE, PHILADELPHIA, FOR YEAR 1915-1916.

Gentlemen of the Alumni:

THE college year now ending has been a successful and progressive one from several viewpoints. The Hahnemann Medical College of Philadelphia has been maintained at a very high standard and many improvements have been made.

Three things are essential for the continued success of this college: First, high character of instruction; second, more high-grade students; and third, more endowment.

The fact that during the past year our graduates have taken examinations for licensure in nine different States without a single failure is eloquent testimony of the high character of instruction that has been given. This same perfect record was made the preceding year.

Our curriculum complies with the most advanced ideas of medical education, and has been favorably commented on by such distinguished educators as Governor Brumbaugh, Dr. Nathan P. Schaeffer, Director of Public Instruction; Dr. J. M. Baldy, President of the Pennsylvania Bureau of Medical Education and Licensure, and many others.

A recent letter from Governor Brumbaugh says: "I count Hahnemann a great medical college, doing a very valuable service to the State and country, and am confident it merits the good will and support of our people."

Let me say with emphasis that not only do our students obtain a course in general medicine second to none, but that they also receive instruction in pure Homœopathy which is both extensive and comprehensive.

With perfect assurance I can state that we have the first of the three requisites.

The demand for homœopathic physicians is so great that it is imperative that we increase the number of our students. Never were there better opportunities for homœopathic physicians than now. Unfortunately, the high educational requirements now demanded prevent many worthy young men from obtaining a medical education. Modern medical education would be entirely confined to the rich were it not possible to furnish financial assistance for young men in moderate circumstances. The average cost of instructing a medical student in the United States is \$419 per year, while the average tuition paid by a medical student is only about \$150 per year, and comparatively few young men are financially able to pay even this amount.

The Board of Trustees of The Hahnemann Medical College of Philadelphia has wisely decided to maintain this college in the highest class of medical colleges and leave nothing undone to insure the permanency and good name of your Alma Mater.

Because of this policy, two years of college credits will be demanded for entrance after January 1, 1918, consequently students will be still more difficult to obtain after this date. The solution of this problem depends largely on the loyalty of the Alumni and in obtaining more money to loan worthy students who would otherwise not be able to obtain a medical education.

My sincere thanks for this kind of support and the gratitude of the students are due the Woman's Homœopathic League of Pennsylvania, Mrs. Lydia Goldsmith, the Class of 1898, the Class of 1905, the Pittsburgh Alumni, Mr. Walter E. Hering, Mr. Charles D. Barney, Mr. G. W. Elkins, Mr. J. S. Clark, an anonymous contributor, the Schuylkill County Homœopathic Medical Society and the Northwestern Branch of the Alumni Association of The Hahnemann Medical College of Philadelphia, for loaning one or more worthy students sufficient money for tuition this year.

I am happy to say that the Class of 1893 is planning to raise a fund of \$3000, which amount will provide sufficient interest to continually pay the tuition of one medical student.

During this college year the Dean has personally visited West Philadelphia High School, Northeast High School, Frankford High School, Haddonfield High School, Lafayette

College, Geneva College, Dickinson College, Wyoming Valley Seminary and the Jersey City College, for the purpose of talking with prospective students.

The following cities have been visited in the interest of the college: Chicago, Cincinnati, Pittsburgh, New York, Atlantic City, Baltimore, Washington, Harrisburg, Reading, Beaver Falls, Scranton, Wilkes-Barre, Wilmington, Lancaster, Columbia and several other places.

A series of lantern slides showing views of the college and hospital has been shown many times.

A splendid exhibit will be made at the meetings of the American Institute of Homœopathy. A large amount of other publicity work has been done, and it is confidently expected that we shall have at least fifty new students in the fall.

The third requisite is additional endowment. Just how this is to be obtained is a serious problem. Certain it is, if the Trustees, the Faculty and the Alumni all work conscientiously on this problem a great deal of endowment will be obtained. The Alumni of The Hahnemann Medical College of Chicago have themselves raised sufficient endowment to pay into the college treasury about \$6000 each year.

This money is given by the individual members of the Alumni Association by pledges to pay the interest on a definite sum of money annually. Each pledge is listed as an endowment for the full amount. A few of our Faculty have thought wise to start a similar fund for The Hahnemann Medical College of Philadelphia, and three of them have promised to pay the interest on \$1000 indefinitely. The first payments have been made. Last year members of the Faculty paid over \$5000 in order to maintain The Hahnemann Medical College at its present high standard.

It is strongly urged that the Alumni of The Hahnemann Medical College now give the subject of endowment serious consideration, for the Faculty have already demonstrated their loyalty.

No medical college can be maintained on a high plane without large endowment, and the proposed merger of several medical colleges in Philadelphia is primarily for the purpose of obtaining endowments from the Rockefeller and Carnegie Foundations.

The future of Homœopathy, as well as the good name of the Alumni, largely depend upon maintaining The Hahnemann

Medical College of Philadelphia in the front rank of American medical colleges.

It is a pleasure to announce that the deficit of the college has been materially reduced this year. This is largely due to an increased number of students, the Gregg endowment and strict economy.

Application has been made to the court to change the charter of The Hahnemann Medical College and Hospital of Philadelphia. This was done primarily to obtain a broader charter for premedical instruction and to enable the granting of a classical degree at the end of four years of study—that is, at the end of the sophomore medical year—and also for the purpose of making the Board of Trustees self-perpetuating. This change will be a distinct improvement.

Among the improvements made this year was the addition of a course of lectures on "The Relation of the Teeth to Disease," by Dr. J. G. Lane, one of the best orthodontists in this country. We are very fortunate indeed in securing the services of Dr. Lane as Clinical Professor of Orthodontia, and next year he will give a more extensive course.

Owing to the increasing importance of the premedical course, the services of Dr. David Wilbur Horn have been obtained for the position of Professor of Inorganic Chemistry. Dr. Horn is a teacher of wide experience and a man of exceptional ability.

The new Nose and Throat Dispensary is probably the best equipped in the United States, and the new Orthopedic Dispensary is of similar character.

New dispensaries for medicine, pediatrics, gynæcology and otology are assured for the near future.

The students have been brought into a more intimate social relation largely by the splendid work of Dr. Ralph Bernstein. An excellent musical club has been organized and several concerts given. So successful were these concerts that the proceeds enabled the students to equip a recreation room. College news has been regularly published in the *HAHNEMANNIAN MONTHLY*.

Among the gifts to the college are an autograph album and a bust of Hahnemann which belonged to Dr. Constantine Hering. These, together with a series of slides for publicity work, were given by Mr. Walter E. Hering.

A picture of Samuel Hahnemann which was published about 1820. This was presented by Mr. Meirs Busch.

A \$125 microtome for the Department of Histology, by Dr. Muley.

A picture of Dr. James Kitchen.

The entire medical library of the late Dr. Edward R. Snader.

Shower bath, charts and maps presented by Dr. W. F. Baker.

The diploma of Dr. John Steck, who was graduated in 1852, and is one of the first diplomas awarded.

A large picture of the graduating class.

In conclusion let me assure you that The Hahnemann Medical College of Philadelphia is both healthy and prosperous, and that she will depend upon Homœopathy and her loyal Alumni to keep her in this condition.

June 1, 1916.

W. A. PEARSON.

QUESTIONS RELATIVE TO THE FEET AND THEIR CARE.

BY

DUDLEY J. MORTON, M.D., PHILADELPHIA.

Visiting Orthopædist, Children's Homœopathic Hospital; Clinical Chief, Hahnemann Hospital, Philadelphia.

(Read at the meeting of the Germantown Homœopathic Medical Society, February 21, 1916).

POSITION OF THE FEET IN STANDING.

REVERTING briefly to our early studies in physics, we will be reminded that it is not practical for a relatively broad jar or vase to have a narrow base. The stability in the upright position is greater as the base is widened. The lateral diameter of the body is distinctly greater than the antero-posterior one, while with the feet approximated the transverse measurement is less than from the heels to the toes. (Fig. I.)

In seeking greater lateral stability, to more easily and effectively maintain equilibrium, separation of the feet, forming an angle or standing with the feet apart, very naturally takes place. The former position, by turning the toes out is almost universally used, and is the more natural as the external rota-

tion of the leg accompanying this movement throws the head of the femur more firmly against the anterior ligaments and structures of the hip joint, whereby standing is a more passive act.

Among non-shoe-wearing races, the position of the feet in standing varies greatly, some using the angular position of the feet even to a marked degree, others keeping the feet parallel. From a theoretical point of view, I would look to the domestic habits of these peoples for an explanation, and especially to their relative activity.

Even in those races who commonly stand with feet parallel, the greater spread at the heads of the metatarsal bones and



FIG. I.

toes yields a wider base than that allowed by the constriction of the shoe at this area among civilized people when the same position is assumed. In the bare feet, also, greater freedom for the action of the lateral muscles is allowed, to control the position of the weight center.

I wish here to bring to your attention the two extremes of foot function:

1. *Standing in equilibrium.* In this position there is a minimum amount of muscular exertion, the bones sliding into firm engagement with adjacent bones, guarding ligaments and muscles. This act is primarily a passive one; that is, as long as absolute equilibrium is maintained the strain is placed upon the ligaments and upon taut but inactive muscles;—a

dead weight, then, passing through the bony frame into the ground, the ligaments preventing the frame from collapsing at its joints, and the taut muscles acting only to retain proper alignment of the bones. (Fig. II.)

Example: A heavy iron column is wedged between, and supported at its lower end, by two slanting supports. These are prevented from separating by the traction cable. Placed in equilibrium, the column is maintained there by very slight

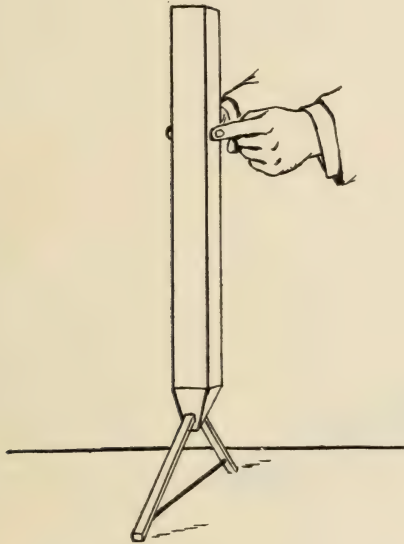


FIG. II.

pressure of the fingers at the sides. The cable represents the ligaments, the fingers show the muscle action.

2. *Running and Jumping.* Where in the former instance the relative amount of function performed by the ligaments was much in excess of that performed by the muscles, here conditions are reversed and the work done by the muscles in propelling the body forward is by far the greater, supplanting to some extent, through their strong contraction, the work of the ligaments.

In standing a broadening of the base is called for to facilitate the maintenance of equilibrium laterally.

With the body in motion, impetus helps to care for the lateral equilibrium, and at the same time, in supreme effort,

the longest leverage in the direction of movement is demanded. Greater speed then *allows* the fore part of the foot to be brought more directly forward; and through the necessity of a longer lever, it *must* be. (Fig. III.)

The large calf-muscles exert the great leverage force upon the foot; the smaller muscles of the calf act, by their position, as a groove or trough guiding the weight directly forward, those of the posterior group also assist in propulsion. (Fig. IV.)

Modifications of function lying between these two extremes, present corresponding degrees of the characteristics shown.

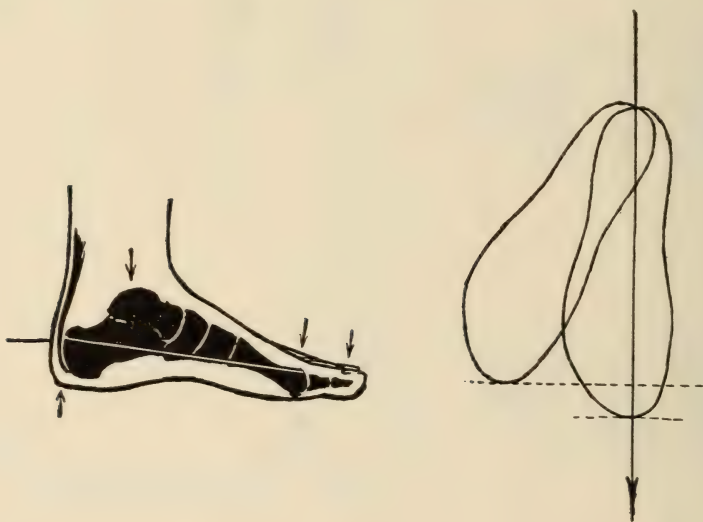


FIG. III.

FIG. III. Left—Foot as a lever. Fulcrum at head of metatarsal in walking, at end of toes in running. Right—Increased length of lever through bringing foot parallel with line of movement.

In slow walking there is a greater necessity for lateral balance and a longer period of passive resistance to gravity by the ligaments, with less demand for muscular and leverage action than in more rapid walking. Consequently the feet will naturally be brought from their angular position to a more parallel one according to the greater rapidity of gait. This is very nicely demonstrated by the serpentine tracks of the wheels of a bicycle, the rider proceeding slowly, and the straight single track when he is speeding. (Fig. V.)

SHOULD THE TOE OR HEEL BE PLACED ON THE GROUND FIRST
IN WALKING?

A writer recently, in a very good book upon the foot, went to quite a bit of trouble in explaining why the toes should be placed on the ground first. He refers to running, dancing, landing after a jump, stepping from a height, in which even "heel-walkers" put the toe first to the ground, to prevent shock of contact, as justification for his theory. These are all irrelevant, in my opinion.



FIG. IV.

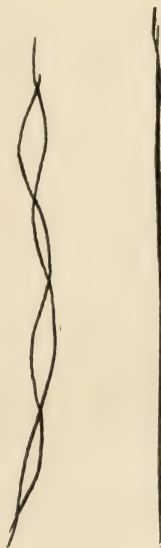
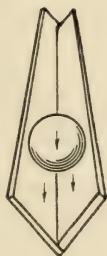


FIG. V.

FIG. IV. Trough-like action of the lateral muscles of the leg.

FIG. V. Bicycle tracks in slow and rapid movement.

In running, the heels do not come in contact with the ground; dancing is not an ordinary function of the foot; in the case of landing after a jump, or in stepping from a height, liability of much greater shock than in walking calls for greater protection, supplied in the first instance not only by landing on the toes, but by a doubling, or folding up of the knees and legs on the body, bringing practically all the extensor muscles of the legs and torso into resistive contraction, in proportion to the amount of shock to be absorbed. The resiliency of the normal arch has been supplied to care for the shock of ordinary walking.

Placing the toes to the ground first produces a backward and downward movement of the ankle-joint opposing the direction made by the moving body. This is mechanically faulty and calls for undue effort. (Fig. VI.)

In heel-walking the ankle-joint rotates forward and downward on the heel in the direction of the body progress. This surely is the natural and logical way that the assumption of weight would be undertaken.

RUBBER HEELS.

It is difficult for me to find the real necessity for rubber heels in a normal foot, except as a matter of silence. They are fre-



FIG. VI.

FIG. VI. Left—Toe walking backward, movement in ankle-joint from I to II. Right—Heel walking, forward movement of ankle-joint from I to II, in direction of body movement.

quently more harmful than helpful in an abnormal foot. Beside the resiliency of the arch already spoken of, a thick pad of fat lies under the heel and softens the shock of impact, both locally and more extensively.

In everted and flattened feet, where the resiliency of the arch is to a certain extent lost, the rubber heel may compensate to some degree, at the same time, however, the compressability of the rubber will tend to allow still greater eversion under the pressure of body weight. (Fig. VII.)

It is only where they are least desired, that, to my mind, they are most indicated. This is in the high heeled shoe of ladies where the position of the foot neutralizes the resiliency of the arch to a greater or lesser extent, by bringing more nearly to a right angle the line of the tarsal-joints to the direction

of the downward pressure, thereby increasing the collision of this with the upward pressure from the ground, and inhibiting the shock-absorbing function of ligaments under the arch. (Fig. VIII.)

HEELS.

The original cause for the appearance of heels on shoes is unknown, and the date of their appearance is also quite obscure, although evidence regarding the latter, points to some time in the middle ages. Quite naturally theories have been



FIG. VII.

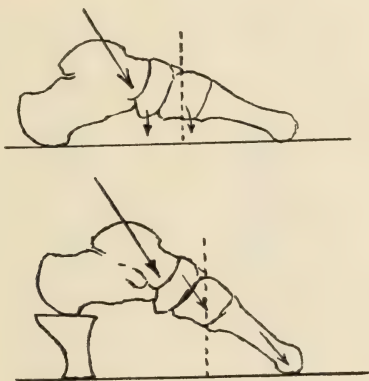


FIG. VIII.

advanced as to their reason for being, among these, probably the most plausible are: Greater protection to the foot and shoes in walking on wet and muddy ground; As a matter of appearance and style, including the desire to appear tall; And that by their use walking is made easier.

The results of their improper use are notably seen in women; a shortening and a weakening of the large calf muscle, followed by strain and distortion throughout the foot. Shoe-men measure the height of the heel in its front portion, the actual height of raise affecting the calf muscle, however, should be measured in the posterior part as it is here the tendon is inserted. Long continued and constant wearing of high heels adapts the foot more and more to their use and the natural heelless position becomes correspondingly one of strain.

Do you, Gentlemen, think you could enjoy a round of golf in a heelless shoe, with a block one inch thick fastened under

the soles of your shoes? The sensations which you would experience would be quite similar to those of the lady who, accustomed to the continuous use of an ordinary two-inch heel, accompanies you, wearing a pair of heelless shoes.

The effect upon the foot, in walking, by a shortened calf-muscle when high heels are not used is to lift the heel of the foot before the leg bones are brought to a perpendicular position, or as a powerful lever to depress that area upon which the leg bones rest.

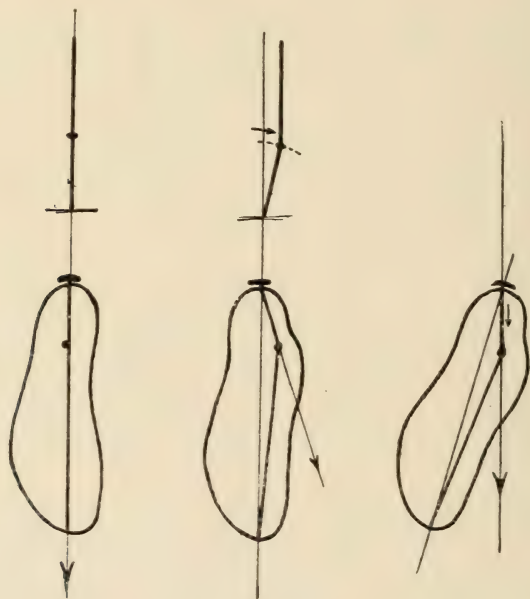


FIG. IX.

FIG. IX. Left—Normal. Center—Pronated foot. Right—Toes turned outward and weight carried over inner side of foot.

While we may look upon the young ladies, who are courting future trouble by wearing the highest heels obtainable, as foolish, it might be well for us to bear in mind, that we may even be more at fault in attending a patient whom we expect to be confined to bed for a long time, by not taking the slight, but necessary precautions to prevent a shortening of the calf-muscle and tendon which otherwise inevitably ensues. Many a case of foot trouble dates from the time of a serious illness in bed. Frequently physicians have excused themselves at the appearance of this sequella on the grounds that loss of tissue

strength from non-use very naturally leads up to this condition.

Let me say with all emphasis, that it is not the feebleness of the tissues, but the shortened calf-muscle that is the real cause of this, not infrequent and painful, as well as troublesome, complication. We take precaution to guard against complications in other organs, then why not in this? While it may not be considered a very important organ as far as body-health is affected, it is certainly one which may have great influence upon the comfort and even life of those who have confidently placed their welfare in our hands.

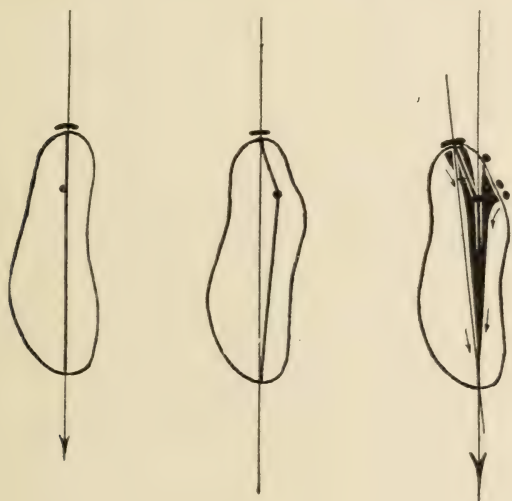


FIG. X.

FIG. X. Left—Normal. Center—Pronated foot. Right—Heel turned outward. power from large calf, flexor, and posterior tibial muscles converging and carrying weight forward through the axis of the anterior part of the foot in a line parallel with that of movement.

FLY-FOOT AND PIGEON-TOE.

Both of these are symptoms of a weak foot. Let us consider them separately.

Fly-foot, also called Splay-foot, is the marked out-turning of the toes associated almost invariably with some degree of pronation or flattening of the feet. It is by far the more common of the two positions, and may be looked upon as indicating that Nature is throwing up her hands, the effort of restoring the foot to a normal condition proving too great for her and she accepts the inevitable, going the way of least resistance.

Compare the position of the center of pressure in a normal foot to that in the pronated one. In the former, it lies slightly to the outer side of, but practically on the line between the insertion of the Tendo-Achilles and the fulcrum, the head of the first metatarsal bone. (Fig. IX.)

In the pronated foot, the center of weight falls well inside this line, and off direct bony support. Force, by action of the calf-muscle, proceeding through the heel, tends to carry the weight off the inner side of the foot, instead of forward over the toes. To bring this force parallel to the line of impetus, the fore part of the foot is moved outward. In this position, the leverage action of the foot being distorted or even destroyed, the fore part of the foot becomes less useful and may even be regarded as an obstacle, so that further rotation very likely follows. This tendency is diminished with the use of a high heel.

Pigeon-toe or the opposite position, appears frequently in young and active children, also showing some degree of weakness or pronation. It may be viewed as Nature's method to give good leverage power to the foot in spite of the existing weakness. In many instances, where the eversion has not been too great, cure of the weakness has been accomplished by use of this position alone. Spontaneous cures!

Comparing this foot with the normal, we see quite a different phenomenon than in Splay-foot. Here also, the pressure center lies inside the normal lever line, and the foot is pronated. Instead of the toes, the heel is turned out, thereby throwing the anterior part of the lever in the direction of the movement. The lateral muscles behind the internal malleolus are called upon to counteract the inward direction of the force from the calf-muscle, produced by the pronation. Power from the two sides converging and fusing, follow their common direction and produce good leverage action in the fore part of the foot. A very serviceable foot for an active child is then developed, but such a foot is not without its dangers, as it presents a very poor structure to sustain weight in prolonged standing. (Fig. X.)

PROPER CLOTHING OF THE FOOT.

An ideal shoe is one which, as a foot covering, least interferes with the physiological phenomena of, and anatomical re-

lations within the foot. This shoe cannot be designed in a "hit or miss" manner as has, until recent years been done by last-makers, with no other knowledge than the trimming of wood, even when their intentions were to produce a shoe for orthopædic purposes.

Let us briefly analyse the foot. (Fig. XI.) The foot is frequently spoken of as a tripod transmitting the weight of the body to the ground at the heel, and at the heads of the first and fifth metatarsals. In activity the posterior leg of the tripod becomes the lifting end of the lever, throwing the weight forward upon the other two legs of this tripod. Pressure



FIG. XI.

which in standing is directed toward the heel, or posterior leg, is reversed, in active function, by the upward movement of this part dividing and augmenting those streams of pressure which proceed forward.

I would particularly call your attention to the course of pressure running toward the outer side. This is transmitted by the astragalus onto the os calcis which carries it forward through the anterior process into the cuboid.

While in the normal foot the direction of metatarsal bones is distinctly radiating, their common center is not the central point of pressure where it enters the foot.

The two outer metatarsals converge upon the outer stream of pressure as it passes forward through the cuboid bone. By firm engagement of this bone with the two metatarsal bones, owing to the line of this joint, the cuboid is deflected forward and inward against the external cuneiform, passing the pressure in that direction. This, in turn, through the obliquity of its contact with the third metatarsal bone, after engagement with the latter, transmits the pressure into the middle cuneiform and the second metatarsal. Hence a union of this with the third stream of pressure takes place and is transmitted to the ground through the first and second metatarsals. In this action the outer metatarsal bones have acted as auxiliary levers, to easily and efficiently concentrate the pressure upon the real fulcrum of the foot. To perform this action properly a radiation of the long axes of the metatarsals is necessary.

The first point that I would make in regard to the shoe is the necessity for proper width across the region of the heads of the metatarsal bones.

Width across the heel should be only such as can comfortably enclose it allowing for the lateral expansion of the soft structures under weight.

Across the instep the fit should be snug as there is no expansion in this region.

The inner line of the shoe should be straight, following the line of the foot and great toe.

Under weight the foot lengthens, and as the heel is raised, the toes are pushed forward a little more. Sufficient room for all this should be given and it should amount to a full half inch.

The heel of the shoe should be broad, and not high.

The use of properly shaped and built shoes would save many feet from disorders leading to severe pain and distortion, and in treatment, should be considered the first requisite. Unless normal mechanical action is allowed by the shoe, correction of the faults is impossible. Not always is advice of this kind received kindly, on account of the willingness of the public to accept the say-so of the shoe man as to what is the proper and only thing for them to wear.

Both parties, however, are improving in their general attitude in regard to the welfare of the feet, and this is particu-

larly well shown in the effort to properly care for the feet of children.

The most frequent cause of disappointment in prescribing an ideal shoe for women is in dropping the height of the heel too suddenly. This often increases the existing strain and its symptoms for the reason I have attempted to show, and I earnestly caution you to consider this change as one to be made with care.

A CLINICAL HISTORY TYPICAL OF PARANOIA, SEXUAL OBSESSION.

REPORTED BY

WILLIAM F. BAKER, A.M., M.D., PHILADELPHIA, PA.

DEAR DR. BAKER:

MY friend and confidant, Dr. Bradford, writes that he has acquainted you with my condition and my desire to find some helpful treatment, and suggests that I now personally see and lay my case before you.

First as to heredity: My father's parents were of English peasant stock, of originally sound constitution, and my grandmother of especially strong character, the very opposite of an hysterical woman, though of deep religious feeling and great benevolence; not intellectually, but morally and spiritually a power for good, and greatly revered by all who knew her. She lived to be eighty-four, and her life abounded with good works.

My grandfather was a strong, stalwart man—the best fighting man of his inches in that part of Warwickshire where he was born and lived for forty years before coming to America. Unfortunately he was a heavy drinker until he had passed the half-century mark, when he reformed, joined the Methodist Church, and led an exemplary life until his death at seventy-six. Three years, however, before his death, he developed paresis, or “softening of the brain,” as our doctor called it. He was a resolute, stubborn man, taciturn and quiet, and apparently not at all of a neurotic type—just an ordinary English agricultural laborer.

My father was a man of higher type intellectually; self-educated and widely read, with a logical mathematical mind, he yet lacked the energy to make much of a success—material success—preferring thought to action. He married, at twenty-

five, a pretty little but wholly unintellectual and uneducated Irish child of fifteen, who bore him in the next twenty-five years fifteen children, eleven of whom are still living, the last born being now thirty-three. Four died when infants.

My father was a nervous man and of rather irritable temper when opposed, although kindly and conscientious. He was fat, weighing 235 pounds when in middle age. He smoked excessively and drank regularly—beer. He was by no means a drunkard, but drank more or less beer every day. He was worn out at fifty-nine, and died of an aggravation of three huge carbuncles in the center of the back; he had had gangrene of the great toe, “Reynaud’s disease,” a year or so before—evidence of senility, he said.

My mother is still living, in her seventy-fifth year, but rheumatic and has sclerosis and a weak heart. Her father and all her brothers drank too much whiskey and beer, and frequently went on sprees. Her youngest brother was an excessive drinker, and, going violently insane at thirty-seven, was shot by three deputies sent to cage him, but who feared his great strength and reputation as a fighter.

One of my sisters—the next younger than I, and a woman of unusual intellect, became a trained nurse and acquired the morphine habit, which she has not succeeded in abandoning after many attempts. A child of one of my younger sisters was an epileptic and died at eighteen.

Several of my sisters have had severe pains in the head, and a condition of the blood which their physician tells them it would take two years’ treatment to eradicate, and which “might be acquired or might be hereditary.” They are all married, and I am convinced that the blood disorder is inherited. Most of us have a uric acid diathesis.

The doctor who attended my father said he confessed to having gonorrhea in his youth, but I have no knowledge that he had ever contracted syphilis.

I was the third child, born when my father was twenty-nine and my mother nineteen. I am now fifty-five. I was an irritable, peevish child—the “crossest baby” my mother ever had, she alleges. I have always been short-tempered, nervous and irritable, and have been constipated since childhood. I have always had to take laxatives. I inherit some of my father’s tendencies, I think, physical and temperamental, but having never smoked, and drinking rarely, and never to excess, and

from my youth up having been fond of athletics, I have kept in much better shape than he, and have had no illness to speak of since I was four years old, when I had typhoid. I am a little over medium height, and weigh now, stripped, 182 pounds, having 22 pounds more fat than I need. I seem in excellent health and in good shape for my age. I suffer not a little, however, from insomnia at times. In part this is due to a bad conscience, for when I awake in the "dead vast and middle of the night" the enormity of my conduct oppresses me more than in the daytime, and I lie awake and think, and cannot sleep; but there are other causes, I feel sure—perhaps general nervousness.

My homosexuality is congenital. At five years of age I became conscious of a warm admiration and sudden tenderness, accompanied by inexpressible shyness and embarrassment for a boy a few years older than myself, who had been away from our village and who, I was told, had just returned. I secreted myself where I could see him at a distance, but an overpowering sense of shame and embarrassment prevented me letting him see me, and he went away again for good without our meeting, and I never saw him after.

When about twelve I was taught to masturbate by some older boys, and took to it at once; and the practice has ridden me, like the old man of the sea, ever since. I had from the beginning an overmastering desire to masturbate other boys and be masturbated in return. Mutual masturbation became an absorbing passion, and I sought to induce my companions to practice it with me; but on and after puberty, and as I grew older, the sense of shame acted as a powerful deterrent. Desire was not less—rather grew stronger—but the knowledge that it was sinful, unnatural and unmanly, and the fear of rebuff and exposure operated to check my indulgence and to make me cautious as to whom I approached.

Often these scruples and fears would lead to shorter or longer periods of abstention, weeks and even months, sometimes. But always at the finish I yielded to the overpowering desire to masturbate. After fifteen or sixteen my companions abandoned the mutual masturbation and for the most part I was forced to practice it alone, but never found the satisfaction that came from associating someone else with me in the performance of the act.

About thirteen I developed a very powerful affection for a

schoolmate, a very handsome and well-made boy of my own age or a year older.

It was then I felt the first real shock of love. I cultivated his society and spent every hour I could with him. I never sought any physical relations with him, nor broached the subject remotely. I would have "walked barefoot to Paradise for a touch of his nether lip," but dared not hint at such a thing. I longed passionately to take him in my arms, but carefully hid my feelings from an overwhelming sense of shyness and shame. He was fond of me in a normal boyish way, but had no suspicion of the overflowing love and passion I felt for him. I never even dared touch his hand, and he has no suspicion to this day of the depth and character of my feeling.

I had many such passions afterward, always romantic and esthetic, yet mingled with passion which never found expression nor dared to seek indulgence. I craved, above all, the esteem of the one who inspired me with such high feeling, and feared to forfeit it with my grossness. I really got a great deal of joy and satisfaction from association and communion with the object of my affection and with doing him kindly offices; and, besides the fear of rebuff, felt that even if he yielded he would be off the pedestal whereon I placed him, and everything on a lower plane—our mutual esteem lessened.

At times this exaltation of feeling for my favorite would cause me to refrain from even solitary masturbation for weeks, but at other times love and lust combined and drove me to seek relief.

From sixteen to twenty I occasionally found companions with whom I indulged but for whom I had no special affection—mere passion—much as the normal youth seeks the woman of the town to gratify his lust, while reserving his higher thought, his more romantic love, for what he calls "decent" girls.

But in my twenty-first year I formed an attachment for a youth a couple of years my junior, which developed into a "liaison" lasting many months, and resumed, indeed, at intervals during several years.

He was of a lower type than those upon whom I had hitherto fixed my affections, less scrupulous, and readily yielded. He afterward married and had many children.

I was conscious, too, that my passion was of a lower type—less affection and more lust.

I had affairs of this character at intervals for years—not without much self-reproach, and many times breaking away and abandoning, sometimes permanently and at others temporarily, these illicit relations. I know how ignoble and unworthy it was, how morbid and unnatural. I knew how my friends would despise me if they knew the truth as to my practice and proclivities. I was the leader of my set, and much looked up to by those who, if they knew the truth, would proclaim me a “Nance.” I shuddered at the thought. I had organized the boxing club of the town, was its most prominent member, and already a semi-professional.

That there was any tinge of effeminacy in me was suspected by none of our set excepting those with whom I had relations, who, of course, being equally guilty, kept their counsel, and indeed were not really members of the club.

I was now turned twenty-six. Young, active, powerful and a clever boxer. I had a protege some six years my junior, also an excellent boxer, a big, healthy, fine-looking lad, whom I had known from babyhood. He esteemed me highly and was under obligations to me. I in turn was very fond of him. One night I fought a draw with the chap who had first taught me boxing—a clever and well-known professional. My protege was matched to fight this same professional a week later at a city club. I went with my friend to second him. This fight also was a draw, and, the hour being late, the “pro” invited us to spend the night with him, saying that he had a spare double bed we could share.

I betrayed myself. My friend kept my secret, but it resulted in estranging him and in my quitting the club and my former haunts and avoiding places where I might meet him. The shame and humiliation consequent upon the shock of discovery were such that life seemed unendurable. I lost weight rapidly, and in a few months was down to 140 pounds—the lowest I had scaled since boyhood. (Three years later we became firm friends again.)

I then began the most serious, sustained and successful effort I had yet made to gain the mastery of myself. And not merely did I endeavor to control my abnormal sexuality, but to regulate all my conduct, and not only to avoid translating into acts unworthy thoughts, but to inhibit entirely such thoughts; to think only clean thoughts, and no matter what happens, to bear it calmly; not to lose my poise, but without

worry or nervousness to consider: "What is the best and right thing to do?" and having, without passion or prejudice decided what should or might be done in the premises, to do it. If something untoward happened, beyond my control—not of my volition—to first think: "Now, can I in any way remedy or mitigate this misfortune?" If I could, to set about it at once; and if I could not, not to worry, but turn the page. I in short, cultivated something of the stoic philosophy and strove for mastery.

"It matters not how strait the gate,
How charged with punishment the scroll,
I am the master of my fate:
I am the captain of my soul."

Well, I made a deal of progress. My nervousness largely disappeared, and I was able to control myself in argument, to reason with an opponent dispassionately, and more with a desire to discover the truth than to prove myself right. I quit worrying about things that couldn't be helped, and devoted myself to helping the things that could be mended. If any sexual thought sought entrance I immediately turned my mind to something else. In a whole year I did not permit myself to have an erection—in my waking moments.

I seemed to be getting along fine, and I began to be much more satisfied with myself than ever before. Perhaps I became too complacent. At all events, accepting a very trying position, I began to go to pieces. I lost my poise, and began to worry and get nervous. I had too much to do, and a boy of seventeen was given me as a helper. He was good-looking and amiable, sexually developed and amorous. I had been away on a boxing tour through the Northwest; he knew I was reputed a clever boxer and a good teacher, and besides, I was his "boss;" he was anxious to learn to box, desirous of pleasing me, and good-looking and hot-blooded. I strove for a time against the temptation, but one year and a half of clean living had not, after all, fixed me firm, and I fell.

Spencer says somewhere, of such efforts at character building: "A word of warning must be uttered against straining the nature too far from its inherited channel. The normal rebuilding can go on but slowly; and from a state of equilibrium long maintained by effort, there is apt to be a fall to stable equilibrium where the primitive nature reasserts itself.

And retrogression, rather than progression, ensues." I am quoting from memory, but have given the thought.

In the almost thirty years that have elapsed since this supreme effort I have made many others, notably at the time of my father's death twenty-five years ago. I had been gradually becoming interested in religion just before his taking off, and this culminated a short time after in my making a determined effort to accept Christianity. The spiritual side of my nature had not been aroused in my former struggle—it was philosophy, not religion, I was then striving for. I had striven for poise, calmness, self-help. Now I thought to lay hold on God—"to hitch my wagon to a star."

I was not now concerned, specially, with curing my sexual abnormality. I knew that would follow as a matter of course, the greater including the lesser. It was my soul I thought to save—to put myself right with God.

Well, while this spiritual exaltation lasted I gave no thought to sexual matters at all; even normal sexuality seemed an offense—animalism.

"For what the law could not do, in that it was weak through the flesh, God sending His own Son in the likeness of sinful flesh, and for sin, condemned sin in the flesh: That the righteousness of the law might be fulfilled in us, who walk not after the flesh, but after the Spirit.

"For to be carnally minded is death; but to be spiritually minded is life and peace."

So I had no difficulty in keeping my body in subjection any more than Paul had. But I found I had to live in the world—I was in business—my father's business had fallen on my shoulders upon his death. How to conduct it and maintain this exalted frame of mind while striving to get my competitor's business I could not see. To prefer my neighbor's good to my own and at the same time compete with him, or to keep a ten-dollar bill in my pocket while my neighbor starved, did not seem possible. And to compromise—to adopt "relative ethics" rather than the "absolute"—sickened my soul.

When it was borne in upon me that to "attempt to practice the ethics of Jesus Christ in a society constituted as ours would be suicidal," I was bitterly disappointed.

And even after I deliberately decided to abandon the attempt to be a Christian, I found myself for a short time upon an elevation that made sensuality repugnant.

But it wore off; "and the last days of that man were worse than the first."

Since passing my fiftieth year my degeneracy and want of will and the dullness of conscience are more pronounced and progressive; and I know that unless, somehow, I can stem the tide, I am lost. Yet even this knowledge, which indeed is a conviction, does not stay me!

I heard years ago of hypnotic treatment—suggestion made when the subject was in a trance—and lately have read "Psychotherapy," by Munsterberg, in which he describes his method of treating patients while in a hypnoid state, and asseverates rapid response and the substitution of the normal for the abnormal impulse in cases of sexual obsessions. I have long been desirous of trying such an experiment in my own case; for after forty years of "auto-suggestion" with complete failure, it seems evident that my own will power is not sufficient of itself.

My life is worth nothing to me as I am, and I am a menace to society. Can anything be done, short of incarceration, to remove that menace?

I must not omit that ultimately I sought a grosser gratification in some of these liaisons—the act of "fellatio"—which in my youth I had not desired, and that now is the preferred method, usually.

I can see, too, that my degeneracy has grown with increasing years, the inevitable consequence of continually violating one's conscience, until I have much less control (and far less prudence, too) than in earlier years. I am indeed in a deplorable condition, for I cannot get my mind off the subject, and am tempted now upon all occasions, where formerly I only occasionally met a youth who attracted me, and the great bulk of my time and thought was given to other matters.

Last October I decided to try regular weekly sexual intercourse, and did so for nearly six months. During that period I did not once masturbate mutually or privately. But my mind was on the subject continually, and I got little, if any, gratification from the intercourse. I was in St. Louis during this period. Returning to New York, I met a young man with whom I had been closely associated for a year, and that ended my period of abstinence.

Both my will and character need building up, and how to do it I know not.

"For that which I do, I allow not: for what I would, that do I not; but what I hate, that do I.

"I find then a law, that, when I would do good, evil is present with me.

"For I delight in the law of God after the inward man.

"But I see another law in my members, warring against the law of my mind, and bringing me into captivity to the law of sin and death which is in my members.

"O wretched man that I am! Who shall deliver me from the body of this death?"

I cannot exclaim with Paul that Christ is the cure, the deliverer, because I have no religious convictions, now.

And indeed, candor compels me to add—or rather my desire to acquaint you with my true condition impels me to add—that it is, I fear, not genuine remorse I feel, but the fear of shame, disgrace and ruin, ending in jail or suicide.

I say it is not genuine remorse, because in my heart I know that, were social conditions here such as in ancient Greece, where relations of a homosexual nature were common, I should almost certainly form an enduring relation of that character and be content.

It is this want of genuine remorse, of real repentance, that makes my case so difficult.

For instance, when I give way to the passion of anger, or some other weakness, it is real sorrow I feel.

But I think, in the main, it is the disgrace and punishment I fear that makes this mania a haunting terror to me. It was not always so, I think, but I am afraid that it is so now.

Hoping that you may be able to help me, I am,

C. D.

THE DIAGNOSIS AND OPERATIVE TREATMENT OF HEAD INJURIES.

BY

H. M. GAY, M.D., PHILADELPHIA.

(Read before the Homœopathic Medical Society of the County of Philadelphia.)

In a paper of this character no attempt is made to cover the ground completely. I have simply tabulated the more striking and important factors which enter into the diagnosis of head injuries with particular reference to the question of operative interference.

I would say that in making a diagnosis it is absolutely necessary that these cases should be watched constantly, as the symptom complex changes with great rapidity, and I would further say that the importance of operating as soon as definite indications are recognized is very frequently overlooked. The effect of serious head injury has such a depressing effect on the vitality of the patient, that if too much time elapses before relief is afforded operation is of little avail.

CAUSES OF SYMPTOMS.

- I. Cerebral Shock (concussion) :
May be of any degree from slight confusion of ideas to complete unconsciousness lasting several days, particularly in children. Early vomiting.
- II. Cerebral Injury :
 - a. Contusion. Oedema (bloody serum).
 - b. Laceration of brain substance.
- III. Cerebral Compression :
 - a. Extra dural (may be no cerebral injury).
 - b. Intra dural (always associated with cerebral injury).

GENERAL DIFFERENTIATION BETWEEN BASILAR AND VERTICAL INJURIES.

- I. Basilar :
Grave respiratory, circulatory and mental symptoms without localization.
- II. Vertical :
Marked localizing symptoms without grave general symptoms.

LOCAL SYMPTOMS.

- I. Open Wounds.
- II. Swellings :
 - a. Oedematous.
 - b. Fluctuating (often indicates fracture).
- III. Ecchymosis :
 - a. Ocular :
 1. Spreading.
 2. Circumscribed.

Often associated with exophthalmos; very suggestive of fracture of the anterior fossa.

b. Post Auricular:

Often suggestive of fracture involving the mastoid, but in children a large emissary vein may be confusing.

IV. Bleeding:

a. Auricular.

Always means compound fracture, blood usually mixed with cerebral spinal fluid.

b. Nasal.

Not indicative of fracture unless local bleeding from the nasal mucosa can be positively eliminated.

c. Pharyngeal.

Suggestive of fracture involving sphenoid sinus.

V. Ocular:

a. Exophthalmos.

Often associated with localized ecchymosis.

b. Nystagmus.

1. Continuous.

Suggestive of fracture involving the internal ear.

2. Transitory.

Not significant.

c. Pupillary changes.

Not particularly significant except as to prognosis, persistently dilated pupil indicating severe cerebral injuries.

VI. Pain and Tenderness:

Pressure on the fluctuating tumor causing a general headache suggestive of fracture.

VII. Percussion Changes:

Not important except when "cracked pot" sound is present.

GENERAL SYMPTOMS.

I. Mental:

a. Unconsciousness.

1. Immediate.

Indicating concussion or grave cerebral injuries.

2. Deferred.

May be due to formation of extra dural clot, anterior portion of the brain, or an increase in intra dural pressure.

b. Delirium.*c.* Amnesia.

1. Transitory.

Not significant.

2. Permanent.

Not significant.

II. Emotional:

Combativeness rather characteristic of brain injury

III. Reflexes:

a. Exaggerated.*b.* Abolished.

Both point to different stages of cortical injury or pressure.

IV. Muscular Tonus:

a. Spasticity.*b.* Spasms.

1. Tetanic.

2. Jactitating

c. Paralysis.

The above also indicating different stages of cortical irritation, and when coming on late is almost a sure sign of the formation of an extra dural clot.

V. Respiratory:

a. Shallow and irregular usually indicative of severe injury to the vital centers and of exceedingly grave import.*b.* Full and stertorous.

Always indicates increased intra dural pressure, especially non-compound basilar fracture.

VI. Circulatory:

a. Pulse flat and irregular.

The same significance, and usually associated with shallow and irregular respiration.

b. Full, slow and bounding.

Same significance, and usually associated with full and stertorous respiration.

VII. Vomiting:

a. Early.

Not significant of severe injury, especially in children.

b. Late.

In children, suggestive of extra dural hemorrhage.

OPERATIVE INTERFERENCE.

I. Absolute Contraindications:

- a.* Explorable injuries with negative findings and with absent or diminishing general symptoms.
- b.* Immediate complete unconsciousness with grave respiratory and circulatory disturbances.

II. Absolute Indications:

- a.* Demonstrable fractures of the vertex with open wounds leading thereto, or the "cracked pot" percussion note present
- b.* Injuries with localizing symptoms early or late.
- c.* Injuries with symptoms of compression following a period of lucidity.

III. Twilight Cases:

- a.* Basilar cases, not compound, with few or diminishing general symptoms.
- b.* Basilar cases, compounded.
 - 1. The ear, middle or internal, perhaps involving the mastoid.
 - 2. Frontal, including the orbit.
 - 3. Sphenoidal.

The twilight cases usually get along without operation; however, those of Section *a* sometimes develop alarming symptoms of compression and die several days after receiving injury.

Those of Section *b* may develop an infectious meningitis, which, if the dura is torn, quickly spreads in the arachnoid with fatal results.

THE PRESENT STATUS OF GASTRO-ENTEROSTOMY.

BY

H. M. EBERHARD, M.D., PHILADELPHIA.

WHEN properly indicated, no operation upon the gastro-enteron gives such brilliant results as gastro-enterostomy. It is wonderful to see patients who have been confirmed dyspeptics for years again enjoy their food with relish and satisfaction a few weeks after gastro-enterostomy has been performed. On the other hand, if this operation is not distinctly indicated and the patient continues to suffer as he did before the operation, one such failure will do more harm than many successful operations.

During the past year thirty-seven cases presented themselves to me who had undergone the operation of gastro-enterostomy and in whom no benefit was obtained. It was interesting to analyze these cases to know the reasons for failure.

I was impressed with the fact that when some internist could not make a definite diagnosis or could find no logical reason why the patient suffered gastrically, he had the operation of gastro-enterostomy performed, using it as a panacea for all epigastric symptoms.

My thirty-seven cases showed failure of relief of symptoms to be due mainly to one of the following causes:

1. Poor surgical procedure.
2. Incorrect after-treatment.
3. Operation contra-indicated.

Under poor surgical procedure I was impressed with the fact that surgeons frequently do not select the most dependent portion of the stomach for their anastomosis. Some of these cases had the anastomosis placed at too great a distance from the pylorus on the larger curvature. The operation, to be of any value, must have the opening as near the pylorus as possible, or in cases of stomach dilatation, in the most dependent portion of the stomach, because of the known tendency of the peristaltic waves to normally push the food toward the pyloric orifice.

One can easily understand the natural tendency of food to be propelled toward the pylorus by strong peristaltic waves,

and that any new opening not favorably placed to the direction of the waves will evade the food.

One patient in particular, who was studied fluoroscopically, was most interesting. This case had a marked pyloric obstruction and certainly required gastro-enterostomy. Fluoroscopic examination proved the anastomosis to be placed on the posterior wall of the stomach two inches above the pylorus and too high on the larger curvature.

When food entered the stomach it naturally gravitated toward the most dependent portion, and in order to escape through the gastro-enterostomy had to be pushed upward a distance of probably two inches. This case found no relief of symptoms for which it was operated; in fact, was made worse because of the unusual effort of the stomach to have food pass through the new opening.

Another case similar to this was one of almost complete pyloric obstruction, where the operation was most distinctly indicated, but on account of the anastomosis being made too high on the posterior wall of the stomach, and the new opening being too small, little was gained by the operation. Food was seen to enter the stomach and normal peristalsis begin, but only a part of it passed through the gastro-enterostomy. In other words, the motility of the stomach was not improved to any great degree by the new opening. It took seven or eight hours for this stomach to empty itself, during which time the patient experienced marked epigastric discomfort.

A number of cases investigated had the true cardinal symptoms of ulcer plus hemorrhage of the manifest and occult types. All of these were without obstruction and had the operation performed on account of paroxysmal hemorrhage. At operation no lesion of the stomach was detectable by palpation. After these patients were discharged from the hospital, all had recurrent hemorrhages of the manifest type and each had transitory occult blood in the feces.

This class of case, I have found, seems to be a prominent one, and brings up the question:

If, after examination of the walls of the stomach, pylorus, duodenum, etc., no lesion is found, is it not good procedure to do a gastrostomy, evert the stomach and carefully go over every part of the gastric mucosa? If this fails to elicit any ulceration or erosion, at times the introduction of a small in-

candescant light into the stomach will, by transillumination, show an eroded or mildly ulcerated area.

Under "Incorrect After-Treatment" I found many cases.

After an operation for acute ulcer and even subacute ulcer, where little obstruction existed, patients were often permitted to leave the hospital without any instructions as to what they should eat.

We have learned that in many of these cases food passes through the new opening, likewise the pylorus. Does it then seem reasonable, if we expect to heal an ulcer in the pylorus or duodenum by means of gastro-enterostomy, to allow patients to eat food that a person with a normal stomach would hesitate to eat?

The same principle holds good in gastric lesions where the ulcer is on one of the walls of the stomach. If the ulcer here is not excised and is continually irritated by rough and improperly prepared food, there is little chance for the ulcer to heal, and it becomes chronic. Added to this, if the new opening is not large enough and later contracts, as many do, little has been accomplished by the operation.

In the majority of my gastro-enterostomies I insist that the patient stay in bed for a period of at least four weeks from the date of operation, during which time I try to plan a diet in accordance with the surgical findings at the time of the operation. I have been gratified with the results of this procedure, and insist that unless a patient is willing to do this I will not be a party to any surgical interference.

It certainly does not seem good judgment to permit these patients to eat the roughest kind of food, thus delaying the healing of the ulcerated area. It is my practice, also, after gastro-enterostomy, to analyze the patient's stomach from time to time. I have been surprised to find how often the stomach is decidedly hyperacid, even after gastro-enterostomy, notwithstanding the fact that these patients are supposed to have alkaline stomachs from the regurgitated intestinal juices. Therefore we might gain some help from a knowledge of the chemistry of the stomach which will materially aid toward the planning of a suitable diet.

Under the caption "Operation Contra-Indicated" many cases were found.

Seven patients had marked epigastric distress before and after operation. Three of these were worse after operation

than before. Careful investigation of these proved that all seven cases were syphilitic and that operation should have never been considered. All seven cases were materially benefited by anti-syphilitic treatment.

Another case was quite interesting—a man with incipient *tabes dorsalis* with gastric crisis. I saw this case before operation and emphatically advised against any operative interference. He was operated, with the expected poor result. I have the plates of this man taken before the operation, showing the stomach in a spasmodic state during a paroxysm of severe pain. The entire stomach was contracted generally, with no especial constriction at the pylorus. There were cases of pulmonary tuberculosis with marked epigastric distress. These had no benefit whatever after gastro-enterostomy. Another case was a depressed fracture of the skull, who, in conjunction with many convulsions, had decided gastric symptoms. This man was operated with no benefit, as was expected.

Two cases of gastropotosis stood out very prominently in my series. These cases were proved by the X-ray and other means to be marked cases of atony and ptosis. Gastro-enterostomy was instituted in the hope that gastric motility would be improved. No improvement was secured by operation. Let me digress to say that I have been much impressed recently with the very good results obtained by the operation of Rovsing, where the stomach, intestines, liver, etc., are hung high in the abdomen. This operation gives the stomach a chance to empty itself in the usually considered normal time of six hours, sometimes less.

In conclusion let me summarize and emphasize that gastro-enterostomy should not be performed until every known cause for epigastric distress has been eliminated.

It is wise to make the gastro-jejunal opening as large as possible, because of the known tendency of these openings to contract.

Surgeons must be sure to select the most dependent portion of the stomach, which should be as near the pylorus as possible.

The ideal cases for gastro-enterostomy are those with marked pyloric or duodenal stenosis or cases where there is delayed motility in which the stomach does not empty itself in seven or eight hours.

Gastropotosis without stenosis finds no benefit by gastro-enterostomy.

Unless sensible dietetic suggestions are made after the operation, many cases are not benefited by surgical interference. Most cases where the ulcer is acute or subacute should be treated for an indefinite period as true medical ulcer cases of the ambulant type.

After gastro-enterostomy in cases where the patient shows every clinical manifestation of ulcer and at operation no lesion is found, frequent examinations of the stool should be made in order to ascertain whether occult hemorrhage has ceased.

THE PHYSICIAN FROM THE STANDPOINT OF THE LAWYER.

(An address delivered at the Commencement Exercises of the Hahnemann Medical College and Hospital of Philadelphia.)

BY

JOHN FREDERICK LEWIS, ESQ., PHILADELPHIA

WHEN I was honored with the invitation to address you, I hesitated to accept it, because I felt in somewhat of a dilemma with respect to the choice of a subject. I could not, without presumption, not being a physician, talk about the profession of medicine, nor could I expect to hold your patience if I spoke about that of the law. The first I know comparatively little about, and for the second I am sure that you care less. Hence I have concluded to confine my remarks to the physician from the standpoint of the lawyer and the layman, and while I may speak to you with more or less emphasis about certain phases of the subject, you need not take me too seriously unless you care to.

You probably recall the story told of the old clergyman who thought that the words of the Bible printed in italics should always be emphasized, and when he preached about the prophet of Bethel, who wanted to follow the man of God from Judah, read the passage thus: "He said unto his sons saddle me an ass, and they saddled *him*."

One of the elders complained to him that he had put his emphasis in the wrong place and asked him to correct it upon the succeeding Sunday. This he did by reading as follows: "He said unto his sons saddle *me*, an ass, and they *saddled* him."

The application of the story is this: If you do not like my emphasis, select your own.

It will be generally conceded that every man over fifty, who has enjoyed God's greatest blessings in this world—a wife and children, has been brought more or less into contact with physicians, and must have observed something worth the telling, and this especially, if the telling be entirely frank and truthful.

I believe it was Tacitus who first recorded the saying of the Emperor Tiberius, that every man over forty was either a fool or a physician. Tiberius is dead, and the facts are too ancient to investigate, but the idea that every man can best cure his own ills is a common one. It crops out in the current publication of books entitled "Every Man His Own Doctor," and is not confined to medicine alone. The law suffers from the same fallacy, and in order to meet it some wise old soothsayer invented the proverb: "A man who has himself for a client has a fool for a lawyer."

In all ages, men have poked fun at doctors. Some of it has been witty, some truthful and some purely malicious, but doctors do not stand alone among professional men in this respect, lawyers and even clergymen coming in for their fair share.

St. Luke says: "Woe unto you, ye lawyers! For ye lade men with burdens grievous to be borne and ye yourselves touch not the burdens with one of your fingers." In the first place, St. Luke was a physician, and in the second, he says, and he repeats it: "Physician heal thyself;" but fails to tell us why the physician cannot do anything of the kind.

Upon the other hand, it is recorded in the Book of Chronicles, that "Asa in the thirty and ninth year of his reign was diseased in his feet until his disease was exceeding great, yet in his disease he sought not unto the Lord, but to the physicians, and Asa slept with his fathers and died."

The proverbs which suggest that physics should be thrown to the dogs, and the wit in modern literature directed against doctors, are an inheritance from the dark ages, when medical knowledge was at the lowest ebb within historic times and the science of surgery engrossed by barbers, when the practice of medicine was largely in the hands of clerics and every prescription compounded in no small part of ignorance, superstition and prayers, when the best physicians were Jews, who, though patronized by men of rank and influence and even by royalty itself, were proscribed by the Canon Law, which enacted that no Jew could be a physician and which pronounced

excommunication against any patient who sought the aid of a Hebrew doctor; when in fact all human knowledge was confined within the narrow limits of a few monasteries and schools. The literature of the Renaissance was a direct outgrowth of the middle ages, and that of modern times is in no small part influenced by that wonderful period in the world's history. Hence the ignorant prejudice with which physicians were often regarded, before the rebirth of human intelligence, can still be found, and this too even among men of some education.

No matter what the origin or reason of this prejudice may be, much that writers and poets say about doctors is interesting, and much exceedingly amusing, especially to those *not* doctors.

We can enjoy the wit of the poet Colman, who says:

“But when ill indeed

E'en dismissing the doctor doesn't always succeed.”

Or that of Zimmerman, who wrote:

“The patient can oftener do without the doctor than the doctor without the patient;” or, “The purse of the patient frequently protracts his cure.”

Or that of Butler, in his inimitable poem of *Hudibras*, in which he satirizes all the weaknesses and follies of his time:

“For men are brought to worse distresses

By taking Physic than diseases,

And, therefore, commonly recover

As soon as doctors give them over.”

Lord Byron, in *Don Juan*, sums up the situation succinctly:

“Physicians mend or end us.

Secundem artem; but although we sneer

In health—when ill, we call them to attend us,

Without the least propensity to jeer.”

You remember the old couplet which exhibits the same psychology:

“When the devil was sick

The devil a monk would be,

But when the devil got well

The devil a monk was he.”

A few days ago I heard a story of two patients in the surgical ward of one of our city hospitals. Each was complaining about the way the operation for appendicitis had been per-

formed upon him. The first patient said that his surgeon had left a piece of sponge inside the wound when it was sewed up, while the second related that his treatment was worse, his surgeon had left inside him a pair of scissors. Just then the wardroom door opened, and the doctor called in, "Nurse, do you know where I have left my umbrella?"

Notwithstanding all the fun which is poked at physicians, it is far less in amount than that poked at lawyers, and of one thing I am sure, the public regard the doctor as having the more honorable profession. The physician always earns a larger measure of gratitude than the lawyer, or than any other professional man. I have seldom heard doctors complain of a want of gratitude from their patients. I recently asked one of the most prominent practising physicians in the city, whether he did not usually find his patients grateful for his services. He replied that they were always more or less grateful if they were *cured*, but not always so when he did his best but was able to accomplish little. He told me that my question reminded him of a patient of his, for whom he had made a difficult diagnosis. There were several office visits and at the last one the patient desired to pay the bill and handed him a ten-dollar gold bit in full payment. My medical friend's jaw fell, or rather my friend's medical jaw fell, as the case involved a difficult diagnosis and the fee was too small. "My dear sir," he told his patient, "I could not think of charging you less than \$20." "So?" replied the patient. "Oh, vell, here it is, if dot is so," handing the doctor a twenty-dollar gold bit which already had been concealed in the other hand.

Gratitude seldom follows the result of legal services, while judging from my limited experience, it usually follows medical services. When a law case is ended the client pays the lawyer his fee and treats the matter purely as one of dollars and cents. He may admire the skill and ability of his lawyer, but seldom feels grateful for the result accomplished. He treats the matter as one of business, and when he gets a receipt, regards the relations between them at an end, almost as much as if he were buying merchandise over a counter.

With the doctor, however, there is always a personal relation, or there always ought to be, towards his patient giving rise to gratitude, to esteem, and even to affection.

I have seldom paid a doctor's bill without the feeling that it was too little, and that my real debt was still undischarged.

Some time ago I attended the funeral of a dear friend and physician of mine and found the large church in which it was being held crowded to the doors. There was genuine grief among those present. Many eyes were filled with tears, men's as well as women's. Who ever saw such a scene at the funeral of a lawyer? Seldom indeed is it seen at the funeral of any man other than that of a doctor, or possibly at that of a clergyman.

The doctor is usually a friend. The lawyer is an adviser merely, and those who give advice are seldom friends in reality. The doctor becomes so close a friend, and acquires so strong an influence over his patient, that the laws of Pennsylvania judicially recognize it, and I believe the laws also of other States, and place the decedent's physician when named in a will, in the same position as the lawyer who drew it and wrote his own name in it as a beneficiary. The lawyer and the doctor under such circumstances are treated alike, and when such will is questioned by the family of the decedent, there is a presumption of fact against its validity, so that the burden of proof is cast upon the doctor and the lawyer, to show the testator was of sound and disposing mind, memory and understanding at the time that the will was drawn, and was not unduly influenced to sign it. In other words, the presumption is against the legacy until it is *proved* to be valid, a severe rule, yet the highest possible compliment to the professions of medicine and law, because it recognizes the intimate tie which binds the client and the patient to the lawyer and the doctor.

The way the law of Pennsylvania thus regards the physician, is an epitome, though it be a judicial one, of the layman's point of view of the doctor. The principles and decisions of the law of today in reference to physicians, are laid down and announced by laymen by virtue of the common law of England or in pursuance of the Acts of the State Legislatures.

The common law of England, which is the basic law of Pennsylvania, had so high a regard for the practitioners of medicine, that in the absence of an express compact, he was not allowed to sue for his fees. He was without remedy, under such circumstances, to recover any remuneration for his services, the law presuming that he would be compensated by honorarium simply. He could, of course, recover upon an express contract to pay, but not upon an implied one, by which I mean that where he simply rendered services without an

actual agreement upon the part of his patient to pay, the law would not *imply* a contract in his favor. It is interesting to note that this strict rule of the English common law was never enforced in Pennsylvania nor in any State in this country, as far as I know, and that the law of England is now the same as it is here, in this respect.

In both countries, however, the relation between physician and patient is regarded as one of special trust and confidence, and while such relation does not *forbid* the acceptance of a gift or gratuity, the physician must prove affirmatively, in the same way as when he is a beneficiary under a will, that the gift was fairly and honestly obtained, and the transaction above suspicion.

The contract between doctor and patient is peculiar, because seldom expressed, but almost always left to implication.

When a physician responds to the call of a patient, he becomes thereby engaged, in the absence of a special agreement, to attend to the case *as long as it requires attention*, unless he gives notice to the contrary or is discharged. He is bound to determine how many visits are necessary, and how often he must go. If the patient goes to the office of his physician, and then fails to return, and suffers in consequence, the fault is the patient's not the doctor's, the patient being supposed to judge for himself how often he needs advice.

There are certain facts to be remembered with reference to services to one person at the request of another. Of course services to children at the request of the father, impose upon the father an obligation to pay, but services to a son who is of age, at the request of the father, do not bind the father, and this especially, if the son be able to pay.

Furthermore, services to a wife at the request of the husband, always impose upon the husband an obligation to pay, and indeed services to a wife at her own request impose a like obligation on the husband, but not however if the husband offers to provide a proper physician for her and she insists in taking one of her own choice, then he is not liable for services rendered after notice to the physician that he will not pay for them.

The importance of keeping correct books of account, in which are entered the name and address of the patient and the number of visits and the amount due by the patient, cannot be overestimated. These books are of great assistance in recov-

ering for services, should the patient die and it be necessary to prove the nature and value of the physician's claim at a hearing in the Orphans' Court. Some physicians so keep their books of account that they are entirely unintelligible. I speak feelingly. They are filled with hieroglyphics which no one can understand but themselves, and the courts have often held such books inadmissible in evidence to prove the doctor's charge. If the physician's book be one of original entries, that is, be one in which the entries are made *at the time the services were rendered*, it will be admitted in evidence as far as the *number* of visits are concerned, but not as far as the *value* of the services, if the value of the services be questioned.

A physician, like any other professional man, can only prove the value of his services, by calling other members of his profession who will testify in his behalf. He should call physicians who have treated similar cases under the same circumstances and made similar charges.

The law in one respect specially favors the doctor. The Pennsylvania Act of 1834, and the law in other States is generally the same, provides that "medicine furnished and medical attendance given during the last illness of a decedent," shall be a preferred claim. This wise provision of the law is for two purposes. It makes it easier for the patient to get medical attendance when sick, and it insures the payment of the bill, if the patient has an estate sufficient to pay it.

What is, or is not, the last illness, is a question of fact. The courts have held that any sickness, which is terminated by the death of the patient, is a last illness, no matter how long its duration, and that in order to entitle a physician to a preference, it is not necessary that the sickness should confine the patient to his room, or be immediately followed by death.

Considering next the nature and amount of the compensation which a physician is entitled to for services rendered, the law declares that it does not depend upon the *cure* of the patient, but simply upon the diligence and care with which the treatment is selected and administered. It is not necessary that the patient agrees expressly, either orally or in writing, to pay the physician, because the law now holds that whenever a physician's services are *accepted*, there is an implied promise to pay for them, that is, the law presumes that the patient agreed, and the patient cannot testify that he did not agree. Whether the treatment is successful or not, has nothing to do

with the force of the obligation, because the implied contract of a physician is not to cure the case but to *treat* it. He undertakes to treat it with such diligence and skill as physicians of education have, at the time and in the locality or in similar localities, where he practises.

The principle of "no cure no pay" has never been applied to the physician in any court in America, and I believe that it never will be in any civilized country. The physician is not an insurance company. He does not guarantee the success of the advice he gives, nor the remedies he prescribes. All he undertakes to do is to bring to the practice of his profession reasonable care and skill commensurate with the circumstances. He is liable for his actions to a charity patient as well as a pay one, but he may decline to treat the case of a patient, unable or unwilling to compensate him. It will doubtless interest you all, whether physician or layman, if I should state the law, as I understand it, with respect to the exact *liability* of a physician to his patient.

While it is true that the physician is not an insurer of the benefits of the remedies he prescribes, yet he *does* undertake to do all that can ordinarily be done for the relief of his patient, and while it is also true that he is not required to possess the highest degree of skill possible, because such a requirement would expect of the ordinary practitioner the capacity of a genius, yet the physician is required to possess that degree of skill and learning usually possessed and exercised by the members of his profession in good standing.

He must use reasonable care and diligence in the exercise of his skill and the application of his learning, *according to his best judgment*.

The reasonable care and skill which he is required to have, is a phrase not of absolute import, but relative merely. That which is reasonable, depends upon the nature of the duty to be performed under the circumstances. The more difficult the duty which the doctor undertakes, the greater is the care and skill required of him in its performance. Where for example a difficult and dangerous operation in surgery is necessary, the practitioner is expected to possess a higher degree of care and skill, than that needed for the performance of an easy or insignificant one.

A case occurred some time ago which illustrates the attitude of the law, with respect to the skill required of the surgeon,

and the principle of which applies to physicians, both being under the same legal responsibility. A patient broke his leg and called in a surgeon to set and treat it. After the leg had healed, he sued the doctor, because it was shorter than the other one, alleging that proper skill had not been used in treating the case. At the trial the Court charged the jury that a surgeon was *bound* to bring to his aid sufficient skill to so set a broken leg, that it would be straight and of equal length with the other when the operation had been completed and the break had healed, just as a stone mason or a bricklayer was required to build a straight wall when employed to erect one. This charge to the jury, the verdict being for the plaintiff, the Supreme Court reversed, upon the ground that the language used by the trial judge, imposed a higher obligation upon the surgeon than that which the law required. No surgeon makes legs. He may mend them, when broken, but only as far as his reasonable skill can accomplish.

It is difficult to define in more exact terms the professional ability required of the doctor than that already given, namely, the possession of reasonable learning, care and skill, commensurate with the circumstances.

The obligation of the doctor is precisely the same as that of the lawyer. Each is under the same liability and responsible for the consequences, but there is a difference between negligence and mere error of judgment, a difference important to bear in mind when the liability of the doctor for malpractice is being determined by a judge and jury. I will try to make this difference clear. Negligence is a failure to collect the necessary data upon which to base a proper conclusion. It is a failure to observe the necessary symptoms to make the proper diagnosis, or a failure to know what the manifest symptoms ordinarily indicate. It is a failure to observe what the general practitioner of ordinary skill and ability, ought reasonably to be expected to observe and know. Negligence is usually defined by the law as *want of care according to the circumstances*.

Upon the other hand an error of judgment, is a failure to reach a proper conclusion, after having collected all the available data, after having discovered all the symptoms manifestly open to observation, and after knowing all that the general practitioner can reasonably be expected to know. An error of judgment is a wrong conclusion based upon known facts,

which conclusion is reached without negligence, but in the honest exercise of reasonable discretion.

Physicians are responsible for their negligence. They are *not* responsible for errors of judgment.

Let us apply these principles by way of illustration.

It has been held by the courts that an incorrect diagnosis, which is merely an erroneous conclusion upon known facts, does not impose liability upon the physician unless the wrong conclusion be due to the want of reasonable learning and skill by the physician who makes it, and unless of course it be followed by improper treatment and injury to the patient. The law looks with leniency in negligence cases upon the general practitioner, while regarding more strictly the physician who holds himself out as a specialist. If the diagnosis is wrong, the general practitioner is not liable if the disease be a rare one, which could only be detected by a skilled specialist. For example, a general practitioner who was sued for malpractice, was relieved from all liability in damages to a patient whose disease of the eyes was diagnosed and treated as conjunctivitis, while the disease in fact was glaucoma. The evidence produced by the defence showed that the certain diagnosis of glaucoma could only be made by a trained expert, that the treatment for it was not ordinarily within the reach of the general practitioner, and that its prominent symptoms were identical with those of conjunctivitis, the disease with which it had been confounded. The layman's point of view as thus expressed by the law is correct. It presupposes that the medical practitioner does not deal with facts and laws having the exactness of those pertaining to physics for example, and that in employing means to accomplish certain ends, the physician cannot calculate results with mathematical precision.

If a physician holds himself out as a specialist in the treatment of a particular disease, he is bound to bring to the discharge of his duties to a patient employing him as a specialist to treat that disease not merely the average skill possessed by the general practitioner, but that of a specialist having a special degree of knowledge and skill possessed by specialists in the treatment of the disease in question. Such a physician is presumed to have devoted his learning, his skill and his ability in one direction, and to have made a more or less exhaustive study of it. The aspect of the law towards him is nothing but the common sense conclusion that a man who

claims a thing should be taken at his own word and expected to back up his claim by the possession of the special knowledge and skill he gives himself out as possessing. The moral of this aspect of the law towards the specialist, is that it is best to claim little but accomplish much.

With respect to the use of anesthetics, the physician or surgeon is required to exercise *unusual* care. If the anesthetic deprives the patient of his faculties, the physician is required to exercise a high degree of professional skill and ability. He is not required to foresee peculiar conditions of mind and body possessed by his patient and of which no notice is given, but is bound to look to all the natural and probable consequences of the anesthetic he employs.

Such, in brief, and superficially stated, is the aspect of the law towards the physician. While it is lenient, it is comparatively strict.

Suits for malpractice, notwithstanding the real liability which the physician is under, are rare, and actual recoveries therein, are extremely so. The law always protects any professional man who honestly and faithfully and with reasonable care and skill, endeavors to perform his duty to the best of his ability.

Whether the physician is negligent or not, is not a question for the jury alone to decide. It is a mixed question of law and fact. Nor is it for the judge alone, but is to be arrived at by the jury after they have been instructed by the judge with respect to the exact liability which the physician is placed under by the requirements of the law. It takes, therefore, thirteen men to rob a doctor, just as it takes the same number to rob a lawyer, who is alleged to be guilty of negligence in the trial of a case for a client. In every lawsuit there are but two sides, and one lawyer must lose. Every patient sooner or later must die, and if the failure to win a lawsuit, and the failure to effect a cure, imposed liability upon the lawyer and doctor respectively, clients and patients would beg for help without response, and the sheriff and undertaker would have everything their own way.

In suits for malpractice against physicians the law never recognizes any superiority in the remedies of one school of medicine above those of another, and while physicians are ordinarily bound by what is universally settled in the profession, the mere fact that writers prescribe a certain mode of treat-

ment does not make it necessarily incumbent upon the physician to adopt. Otherwise the science of medicine would reach a Chinese standstill. If the case be a new or complicated one, the patient must trust to the skill and experience of his doctor, with the confidence that where the settled practice allows but one course of treatment, any departure from that course may be regarded as evidence that the physician did not know of it.

Where there are different schools of medicine, all that any physician undertakes is that he understands and will treat the case according to the recognized rules of the school to which he belongs. He is always justified in standing by his colors. Nor does the layman, in my opinion, care about the distinction between the different schools of medicine. His one desire is to get *cured*; and if he can successfully cross the valley of the shadow of death, he does not care one whit whether he does so in the barge of Charon, in a motor boat, an aeroplane or a Zeppelin. What he wants is a good navigator, who is able to control the particular conveyance he undertakes to run.

The testimony of physicians in court, especially in accident cases, is often conflicting, though the physicians called by each side are equally reputable and, I may add, is often utterly unintelligible to Court and jury. As far as the actual facts are concerned—that is, whether certain things do or do not exist—there is no more excuse for conflict in the testimony of doctors than for conflict between any other witnesses, but as far as the conclusions to be drawn from the facts are concerned, opinions may differ widely and yet honestly.

I tried, some years ago, a very interesting case involving the testimony of a number of doctors, in which the conclusions differed widely and yet with absolute honesty.

I represented the executors of a prominent member of the Faculty of this College, who was injured while attempting to board a trolley car. He was about seventy years old, and while trying to get on, the car was prematurely started, so that the learned doctor was dragged part way across the street and greatly shaken. He was picked up, taken home in a nervous condition, with some abrasions upon his face and head and some bruises upon his body. He was able to go out every two or three days, but in a few weeks was confined to the house and finally to his bed, and died about three months after the accident of miocarditis and dilatation of the heart. Besides the testimony of witnesses as to the facts of the case,

expert testimony was given by three physicians in behalf of the plaintiff and three in behalf of the defendant, and the sole issue their testimony raised was whether the accident and the consequent blow to decedent's body could produce the subacute miocarditis and resulting dilatation, which it was admitted decedent died from. Three physicians of recognized standing, one of whom was a specialist in diseases of the heart, testified that in their opinion the disease was directly due to the injury, coupled, of course, with the decedent's advancing years. Upon the part of the defendant, however, three physicians of equal standing, one of whom was also a heart specialist, testified to directly the contrary, that subacute miocarditis, with resulting dilatation, could *not* have resulted from the blow.

The case was tried three times, about six months or a year elapsing between each trial, until every one of the three Judges of Court of Common Pleas No. 2 in Philadelphia had tried the case. When the case was first tried the verdict recovered was so large that the Court had to set it aside because the recovery was too much, upon the principles of the Carlisle Tables, for the reasonable expectancy of life of a man seventy years of age.

When the case was tried the second time, the Court set aside the verdict upon motion for a new trial made by the plaintiff, the verdict having been for the defendant, because the Court, in its charge, said to the jury, instead of leaving *them* to pass upon the matter: "There is no more reason for believing that, when you strike the step of a car and miss it, and tumble down, you will get valvular disease of the heart from it, than there is that you will get smallpox or scarlet fever from it; and on that ground the testimony is to be utterly rejected."

When the case was tried the third time, a reasonable verdict was rendered in behalf of the plaintiff executors, the charge of the Court leaving to the jury the decision of the question whether or not the death of plaintiff's decedent was due to the accident which befell him, and this verdict the defendant company paid.

In this case counsel for the plaintiff put to the physicians an hypothetical question, reciting the injury and the cause of death, which was given as subacute miocarditis followed by dilatation, and they were cross-examined by counsel for the defendant in the usual way, the profession of the law exam-

ining, as well as they were able, the members of the profession of medicine. The difficulties encountered in the trial of the case were similar to those usually encountered when physicians are called to give expert evidence. A trial before a Court and jury is an effort to intelligently discover *facts*, because when the real facts are proved the verdict is easy. The testimony of physicians—presuming, of course, that they were not eye-witnesses to the occurrence in question—is not, and cannot be, anything else than expressions of opinion; so that Courts and juries are at once confronted with men differing from each other diametrically in matters of opinion, and in the application of that opinion to the facts of the case. The physician is asked to testify as to the reasonable probabilities of certain results following from certain causes, and it is always difficult for laymen to understand how physicians can possibly differ as widely as they do, and yet differ honestly; but the answer, I suppose, is found in the fact that medical conclusions are not reached with mathematical precision, and that the science of medicine is not made up of a succession of theorems which can be demonstrated like those of geometry.

I would like to, if I may, address a few words particularly to you gentlemen who have completed your studies and are about to receive your degrees from your Alma Mater. You have been instructed in the tenets of an ancient and honorable school of practice, as taught in a college having ample facilities and splendid equipment, and which has the rare advantage of being able to give its students a larger individual share of the personal teaching and influence of its professors than any other of which I have knowledge. I envy you the opportunities you have enjoyed and the degree you have earned, but I envy you much more the splendidly gratifying career which lies before you and is now within your grasp. If you faithfully practice that which has been so faithfully preached to you, your reward is certain, not in material wealth only, which will come to you by diligence just as surely as it will by the practice of any other profession, but in that greater wealth of self-satisfaction in being able to heal the wounded, cure the sick, and thus make the world brighter and happier than you found it.

Yours is indeed a noble profession, in some respects without an equal. It is unique in the fact that its practice is acceptable to every man, no matter what his race or creed. It is

both humanitarian and divine. Had you lived five hundred years ago, and possessed then the knowledge and skill you possess now, you would probably have been regarded as messianic, sent direct from God, because no physician or surgeon who had ever lived would have been your equal. You would have had more skill and knowledge than all the world before you, and you should realize, therefore, that your present possessions are an inheritance from many centuries of concentrated observation, study and experiment—a priceless legacy from thousands of men whose self-sacrifice and devotion have accumulated in order that you might expend. Keep their historic names in mind and begin where they left off. Add to the common store of human knowledge by like observation, study and research, so that even if you have received but one talent, you may be found, when the Lord cometh to reckon with his servants, to have gained one other talent besides it.

I doff my cap to your profession. In the present great crisis in the world's history, the doctor stands alone in a position of unequaled honor, one which he has attained by fearless, unselfish and devoted conduct.

The warring nations of Europe are showing human nature in its most inhuman aspect. Learned men, as well as ignorant, in every country at war, are engaged in killing human beings. All the professions, clergy included, with the single exception of the doctor, are striving to outdo each other in the devilish work, not accidentally, nor experimentally by way of merciful vivisection in the interest of science held up as a crime by some of those who would plunge our own great country into the same hell, but deliberately, systematically, and in many instances wickedly and maliciously. Killing is being made a matter of business. The chemist is inventing and making dreadful explosives, unquenchable fires and unbreathable vapors. Engineers are mining and countermining each other's work, so that secret explosions, against which neither wit nor courage can avail, are bringing about a sacrifice of human life in a way which would have made Cæsar, Alexander, Hannibal or Napoleon blush with shame. Even clergymen are wearing the uniform of their country and taking lives at the front, in a war which no one yet has been able to discover the real cause of, nor satisfactorily explain why it continues; and yet among all these professions the physician is the only man who, instead of killing, is endeavoring by all the means in his power

to save human life, attending the sick, healing the wounded and relieving the suffering of those about to die. Seldom indeed does any cross, either Victorian or Iron, reach his breast, but he is earning a vastly greater honor in the respect and esteem of the civilized world. May God bless the doctor for his work at the front!

What he is doing is for the benefit alike of his fellow-citizens and of captured prisoners, and springs not only from a love of duty characteristic of the profession of medicine, but also from a genuine respect for human life, and from a genuine sympathy for those who suffer, which, from my point of view, is the most desirable quality for a physician to have.

In conclusion, I would urge upon you to cultivate this *sympathy* for your fellow-man. It is easily acquired and easily developed. It is merely a similarity of feeling or condition which one has for his brother, or, as Dryden puts it, the ability to glow for others' good or melt at others' woes. From the standpoint of a layman, the best physician is one who suffers with the patient and hence is spurred on to cure him. Sympathy is itself curative. In Burton's "Anatomy of Melancholy" it is said that "Felix Plater noted of some young physicians that study to cure diseases, catch them themselves, will be sick, and appropriate all symptoms they find related of others, to their own persons." It is not necessary, of course, for you to do this, because there is danger of getting so much absorbed in the study of disease as to forget that the only thing the patient wants is to get cured as soon as possible. Sympathy for a patient indicates a sincere desire to help him, and your efforts will go straight to his heart. As the Germans put it: "Was von Herzen kommt das geht zu Herzen." By human sympathy alone can you ever hope to answer *yes* to the famous question which Macbeth asked the doctor:

"Canst thou minister to a mind diseased,
Pluck from the memory a rooted sorrow,
Raze out the written troubles of the brain
And with some sweet oblivious antidote
Cleanse the stuffed bosom of that perilous stuff
Which weighs upon the heart?"

**BIOGRAPHICAL SKETCH OF THE LATE THERESE BUCHHEIM HERING,
Widow of Dr. Constantine Hering, of Philadelphia.**

(For the HAHNEMANNIAN MONTHLY.)

THE recent death, on December 29, 1915, in Philadelphia, at the age of nearly ninety-four years, of Therese Buchheim Hering, the wife of the late Dr. Constantine Hering, who had been affectionately entitled the father of Homœopathy in America, closed what may be justly termed a joint career devoted to the interests of Homœopathy in this country. Although she was not herself a student of medicine, yet her sincere co-operation in the life work of her devoted husband was even of more importance to him than that of a professional colleague could have been; she paved the way for his work, she relieved his mind from many of the cares and worries of life so that he could give his entire thought and soul to the work to which he was so devoted, and in which he was so intensely interested. Her contribution to his success was to make it possible and easier for him to accomplish what he did by her many sincere acts of kindness, thoughtfulness and devotion such as only a loving and affectionate wife can contribute to a husband's career; this most valuable gift of womanhood she possessed to an unusually high degree.

Almost the entire part of her married life was spent in the large family homestead, fronted with a row of stately trees, in what was then a residential part of Philadelphia, the site being now memorialized by the Constantine Hering Building, erected by her son Walter. Her home was a Mecca for homœopaths in that city and was the scene of many of their gatherings as well as those of visitors from other cities. No matter how great the number of guests, or how unexpected their arrival, they were always received with a cheerful welcome by her as her husband's guests. She provided the genial atmosphere which adds so greatly to the pleasures and success of meetings of friends.

The success of her husband's career was paramount with her; anything that would help him in his ardent and conscientious work she provided with pleasure, generally even anticipating his desires. Nothing was ever too much trouble for her or was left undone if it aided him in his work, or did so indirectly by injecting contentment, happiness and comfort in

the atmosphere in which he worked. She took upon herself all the many cares and duties of the doctor's hospitable home and their large family, in order to relieve him of them so that he might devote his untrammelled thoughts to the professional work in which he was so intensely interested. His success and the recognition of his work by others was as great a pleasure to her as it was a satisfaction to him. It was her devoted co-operation as a companion which enabled him to accomplish all that he did, and her sincere interest in his career was an important factor in encouraging him in his very creditable ambitions. She exemplified the saying, "Show me a successful and affectionate husband, and I will show you a true, loyal and affectionate wife."

Many of the numerous friends and students of Homœopathy who had enjoyed the hospitality of the doctor's home—and they were always welcome—have since expressed themselves in most affectionate terms of their kind, sincere and cheerful reception by its genial hostess.

Even in the latter days of her advanced age, when her enfeeblement limited her pleasures, she still took the keenest interest in hearing about the progress of Homœopathy and especially the numerous expressions of appreciation by not only his colleagues and followers, but also by some of the more broad-minded followers of antagonistic schools of medicine—of the able and conscientious work which her husband had contributed toward its introduction and acceptance in this country. Although she outlived him thirty-five years, she lost none of the sincere interest she took in his career while she was his devoted companion. Modest to an extreme, she would accept no credit for her well-deserved share in his success, but merely replied, as she did again shortly before she died, "His success was my pleasure."

On all the many occasions when the interests of the cause of Homœopathy were brought before the public, such as fairs, festivals and celebrations, she always cheerfully took upon herself a large part of the work; this she did in such a modest and unostentatious way that only those who knew her intimately appreciated her contributions to the cause. It was always the good of the cause which prompted her and never her own prominence in it.

She was the daughter of a government physician, Dr. Christian Friedrich Buchheim, of Bautzen, Saxony, in which pic-

turesquely located city she was born on April 6, 1822, and married Dr. Hering, then a widower, in 1845, during his only and short return visit to his aged father in the country of his birth, after he had been the prime mover in founding at Allentown, Pa., the first homœopathic college in the world, and had established a practice in Philadelphia.

Besides being an affectionate foster-mother to the three children of the widower she had married, she had eight children of her own, of which six survive her with the happiest of recollections of their childhood days in the old homestead in which nothing was ever too much trouble for her if it added to the pleasure and well-being of her family, to which she was so devoted, and which made her young children prefer to be there with her rather than anywhere else. She was a model wife, mother and friend.

Although she made several short visits to the country of her birth, she often remarked that she preferred to live where the best and happiest part of her life was spent and where she could often see her children and the many friends of her husband and her family, of which friends there were many who had a sincere affection for her, due to her kind disposition, her sincere hospitality, her altruistic spirit, her unfailing cheerfulness, her charming modesty and her loyalty to her friends.

She is survived by a step-sister, her step-daughter Odelia, now Mrs. J. F. Pope, and her six sons and daughters, Rudolph, Melitta (wife of Dr. C. B. Knerr), Walter, Hildegard, Carl and Hermann, besides eleven grandchildren, one great-grandchild, four step-grandchildren and three step-great-grandchildren.

C. H.

PRECIS OF WORK OF THE INTERNATIONAL HOMŒOPATHIC COUNCIL, 1911-1915.

1912—Meeting of Council at Zurich in August, President McClelland in the chair. Dr. Hoyle appointed Traveling Secretary for International Work. Dr. Hoyle on the Council's instructions visited Sweden and co-operated with the homœopathic physicians there in an active propagandism.

1913—A well-attended and most profitable Annual Meeting of the Council was held at Ghent in August. Besides a public assembly presided over by the governor of the province, the

official meetings of the Council covered a period of three days, and much important work was satisfactorily done.

The Berlin Homœopathic Society sent an invitation for the Traveling Secretary to address an open meeting on the subject of Homœopathy. Dr. Hoyle visited not only Berlin, but also the towns of Magdeburg, Darmstadt and Frankfurt, carrying out a successful and interesting propagandistic work.

1914—Through Dr. Leon Brasol a similar request was proffered to the International Council, and Dr. Hoyle was commissioned to journey to Petrograd at an important juncture in the history of Homœopathy in Russia. This visit was made with official sanction, and resulted in a considerable activation of the influence of Homœopathy in that country.

Every arrangement had been made for a largely attended Annual Meeting at the Hague, Holland, in August. The First Vice-President of the Council, Dr. George Burford, had visited this famous city and conferred with Dr. Voorhoeve and with Dr. Tuinzing, of Rotterdam, regarding public and private arrangements for the reception of the delegates.

Suddenly, like a bolt from the blue, came the declaration of war three days before the proposed meeting. This was necessarily canceled, and as several leading American homœopathic confreres were in England en route for the Hague, a meeting of available delegates was called in London and the official business destined for the Hague meeting considered.

Dr. John Preston Sutherland was appointed President of the Council in place of Dr. J. H. McClelland, of splendid memory. It was decided to continue the work of the Council, and, recognizing the difficulty of any international meeting until the advent of peace, it was further agreed that the British officers and delegates, working with an Advisory Committee appointed by the British Homœopathic Society (the President of the society being *ex officio* on the committee), should be constituted an interim body to carry on the Council work.

April, 1916.

ANNOUNCEMENT OF THE INTERNATIONAL HOMŒOPATHIC COUNCIL.

To the Homœopathic Physicians of the United States:

HONORED COLLEAGUES: To you we desire to convey our cordial greetings, and to address you in the interests of World Homœopathy, which knows no barrier of race or language. May her institutions flourish and her work prevail!

At the last International Congress in 1911 application was received and endorsed by the assembly for the next meeting to take place in Berlin in 1916. Political events have intervened to preclude the possibility of a representative Congress meeting in Berlin in this year of grace. As alternatives in America or a European neutral State have been considered by the officiate as possible places of assembly, but the same objection as to the impracticability of representation holds good with these proposed centers as with the other appointed city of meeting. The officiate advise that in the year 1916 no summons be issued for the meeting of the International Congress. That in the ensuing year 1917 the question be considered as to practicability, time and place, and an advisory statement thereupon issued.

At the Congress of 1911 the International Homœopathic Council was appointed with powers to consider and promote the interests of World Homœopathy and to report at the next ensuing Congress. This Council has drafted a precis of its work, which we append; a detailed account of its being and doing will be presented to the next meeting of the International Congress. It is obvious that the constitution of such an interim Council has been amply justified by results, and the Council thus appointed proposes to continue its work up to the next assembly of the International Congress.

We remain, honored colleagues, yours fraternally in the interests of Homœopathy,

GEORGE BURFORD, M.B.,

President of the International Congress of 1911.

JOHN PRESTON SUTHERLAND, M.D.,

CHARLES E. WHEELER, M.D.,

Permanent Secretaries of the International Congress.

C. KNOX SHAW, M.R.C.S., &c.,

Treasurer of the International Congress of 1911.

EDITORIAL

OUR STATE SOCIETY PRESIDENT.

DURING these warm days, when the average doctor is well satisfied to take a short period of rest after the strenuous duties of the past winter, it is a source of satisfaction to know that the President of the Homœopathic Medical Society of the State of Pennsylvania is busily engaged in perfecting the organization of homœopathic physicians in sections of the State where county or district societies have not previously existed. In his characteristically quiet and unostentatious manner, Dr. Heimbach is carrying on a very valuable work, and his activities in the interest of Homœopathy have fully justified the honor the Society conferred upon him by electing him to the office of President in September, 1915.

Dr. Heimbach is a self-made man in the best sense of the word. He was born on a farm in Herford Township, Berks County, Pennsylvania, December 14, 1869. He was one of a family of nine children who were born to William P. Heimbach and Sarah Gery Heimbach. His father was well known in his community as a progressive farmer and as an advocate of thorough education. Together with his brother, Dr. A. E. Heimbach, of Renovo, Dr. Heimbach attended the country school and later entered the Kutztown Normal School. After graduation he taught three years in the East Greenwich public school, Montgomery County, Pennsylvania. While teaching there the degree of M.E. was conferred upon him by the Kutztown Normal School. In 1894 he entered the Sophomore Class at Hahnemann Medical College, from which institution he graduated in 1897. In August, 1897, Dr. Heimbach located at Kane, Pa., where he has since pursued the practice of his profession in a manner that has gained for him the confidence and respect of the members of his community and of the entire medical profession.

As a man Dr. Heimbach has always been identified with every movement that was made for the betterment of the community in which he lives, and as a physician is a splendid

example of the type of family physician that is unfortunately becoming only too rare during recent years. It is a splendid thing for the members of the Homœopathic Medical Society of the State of Pennsylvania to have as their leader a man whose activities are devoted to the cause of Homœopathy and whose character is such as can command their highest respect. We bespeak for Dr. Heimbach the hearty co-operation of every member of the State Society in making the annual meeting of 1916, to be held at Reading, a grand success and in this way pay a practical tribute to his work in behalf of each and every member of the Society.

G. H. W.

AMALGAMATION OF MEDICAL SCHOOLS IN PHILADELPHIA.

AFTER more than a year of conferences and meetings, the amalgamation of the medical schools of the University of Pennsylvania, the Jefferson Medical College and the Medico-Chirurgical College, of Philadelphia, in one organization, practically controlled by the University of Pennsylvania, has been announced. As might be expected, this merger was not consummated without a great deal of opposition on the part of the alumni of the two latter institutions, and inducements of varied character were offered and accepted before the union could be brought about.

Since the merger of these three institutions, there remain but three independent medical schools in Philadelphia, namely, the Medical Department of Temple University, the Woman's Medical College and the Hahnemann Medical College. It seems probable that the same influences that have merged (or submerged) the Medico-Chi and the Jefferson will soon attempt to do away with the independent existence of the Woman's Medical College. In fact, it would seem that this could very readily be brought about by merely admitting women to the Medical Department of the University of Pennsylvania, thus removing the chief reason for the existence of the Woman's College as a separate institution.

The fate of the Medical Department of the Temple University is at present hard to foresee. This department was first started as a night school but a few years ago, and while it now gives a full medical course, it has never been looked upon in

too favorable a light by those who presume to control the output of medical institutions in these days. Whether the edict shall go out that "Temple must be destroyed" we cannot say, but there are scant grounds for the belief that this comparatively young institution could long hold out against the organized efforts of the American Medical Association and allied interests if they should decide upon its elimination "for the good of the cause."

The Hahnemann Medical College would seem to have more reason for continuing its independent existence than either of the two medical schools above mentioned, as Hahnemann offers to the student of medicine, instruction in a system of medical therapeutics that the University of Pennsylvania is entirely unprepared to give.

The advantages of the merger of these three large institutions into one have been emphasized in the daily papers and are, of course, obvious. They consist, first, of the economic advantage of combining the three institutions in one. Second, the combined institution will have the financial resources of the three institutions, and the judicious administration of these funds should result in the development of a very efficient and well-equipped medical school. Third, it is planned that in the consolidated institution, provisions will be made for giving post-graduate work in Philadelphia on a scale that has not hitherto been attempted. This latter is a pressing need if Philadelphia is to maintain its place as a leading medical center, and if this plan shall be effectively carried out it will in itself justify the merging of the three schools. While we cannot witness the passing of such famous medical schools as Jefferson and the Medico-Chi without a feeling of regret, we cannot close our eyes to the fact that, on the whole, this merger, if carried out in the proper spirit, should make for the best interests of medical education in Philadelphia and should give this city an institution that will be second to none in its facilities and resources.

While recognizing fully the advantages of this merger, we should not forget, on the other hand, that it would be a calamity to Philadelphia, and to the medical profession, were all the independent schools, and particularly the Hahnemann Medical College, for reasons which we have previously stated, to close their doors. The disadvantages of placing in the hands of a single group of men a monopoly of medical teaching in a

great center like Philadelphia is but too obvious to be overlooked. It would be expecting too much to believe that abuses would not arise under such circumstances, and it is a matter of great importance to the Medical Department of the University of Pennsylvania that at least one independent institution should be preserved.

Aside from this fact, we must recognize that, no matter how wisely or efficiently the new institution may be conducted, there are sure to be persons who will, justly or unjustly, feel themselves discriminated against and who will be compelled to turn to some other medical school for their education.

From the standpoint of the people of Philadelphia and of the State of Pennsylvania, the maintenance of an independent medical school is of paramount importance because of the fact that experience shows that the larger proportion of the graduates of medical institutions of the type after which it is proposed to model the new Medical Department of the University of Pennsylvania, are chiefly interested in and engage their activities in medical research work in large laboratories, and in teaching and professorial positions in our universities and colleges. It is doubtful whether the entire output of the consolidated schools will amount to thirty per cent. of the aggregate output of the three individual schools represented; and by the time we take out the research workers, the teachers and surgeons, there will be few, if any, doctors left. And yet the people of this great commonwealth need doctors—just plain, ordinary doctors—to come to their homes and to care for just plain, ordinary sick men, women and children. The independent medical schools will, in the main, have to supply this type of men. We can see but little hope for the future maintenance of the Woman's Medical College and Temple Medical School as separate institutions, but we sincerely trust that the trustees and alumni of Hahnemann Medical College will never consent to the merging, submerging or obliteration of that institution, but will maintain it through all the years to come for the high aim and purpose of supplying good, practical homœopathic doctors to care for the health of the people of Philadelphia and of Pennsylvania.

G. H. W.

GLEANINGS

THE ALLEN OR "STARVATION" TREATMENT FOR DIABETES.—So much interest has been created in the treatment being used at the Rockefeller Institute under the direction of Dr. Allen that the following description by Dr. J. T. Halsey (*New Orleans Med. and Surg. Jour.*, Jan., 1916) is very timely. Its fundamental details are:

1. Inauguration of treatment by a period of absolute fasting, lasting ordinarily from one to four or five days (in extreme cases for as long as ten days).

2. Underfeeding, i. e., giving much less than is ordinarily considered an adequate ration, for a period of variable length following the period of absolute fasting.

3. The very careful determination of, and avoidance of, exceeding the tolerance of the patient, not only for carbohydrates and proteids (as under former methods of treatment), but also for fats, generally looked upon not only as harmless, but as actually beneficial to the diabetic, whether of mild or severe degree.

4. Careful avoidance of an increase of weight unless the patient be decidedly underweight.

When called upon to adopt so radical a departure from tried and accepted methods, it is only right to ask what are the advantages claimed or demonstrated, which may be secured by its adoption. Very briefly they are as follows:

- (a) More rapid and certain abolition of the glycosuria, and more important still, of its cause, the glycemia.

- (b) More rapid and more successful building up of the carbohydrate tolerance or, in other words, the ability to combust carbohydrates.

- (c) Prompt and complete relief of the acidosis or acidemia, and, as a result, prevention of or, if present, the clearing up of that most serious of the results of diabetes, diabetic coma.

If it will do this, we will all agree that it is a treatment worth while.

Inaugural Fast.—Taking up the above in turn, the inaugural fast may first be considered in detail. In the great majority of any but the most severe cases this need not be for longer than from two to four days. Generally speaking, its duration should be about twenty-four hours longer than is necessary to secure a disappearance of sugar from the urine and the disappearance or marked diminution of the acidemia (if such be present), as evidenced by the reaction of the urine and the lessening of the ferric chlorid reaction. If necessary to prolong the fasting for more than two days, it is well to give about two ounces of beef broth four to six times in twenty-four hours.

It is, however, not yet possible to dogmatize as to the length of the initial fast. In some especially obstinate cases it will be best to interrupt

it by a period of careful feeding, and after a variable length of time, again fast the patient, when, as a rule, one or two days of abstinence from food will lead to a complete disappearance of the glycosuria or acidemia.

During the fasting periods the patients should drink freely of water or weak tea (no sugar or milk), and, if acidosis be present, take from four to eight ounces of whisky in divided doses. Feeble patients will bear these fasts best if kept in bed well covered and, in cool weather, surrounded by hot water bottles. It is most surprising and gratifying to see, in even desperately sick patients, an increase in strength result from a fast of several days' duration. While we can confidently expect that the acidosis, if present, will quickly diminish in intensity, alkalies should be given freely at the commencement of the fast and the dosage lessened as the urine becomes alkaline. Even though no acidosis be present, it is probably wiser to give alkalies when starving a diabetic for the first time.

That glycosuria should be abolished by absolute fasting is, in the light of former experience, not in the least surprising, for to some extent absolute or partial starvation for short periods has been a part of our treatment of certain cases, but that acidosis can be lessened and abolished by this measure is absolutely in opposition to what we have all been accustomed to believe. Did we not fear to too suddenly reduce the carbohydrates for fear of causing this dreaded acidosis, and did we not all believe that, when coma threatened, we should increase the ration, especially that of carbohydrates? Moreover, we knew that in the healthy individual fasting or even underfeeding was regularly followed by the appearance of acetone and diacetic acid in the urine, as evidences of the development of an acidemia. And yet it is true that in the diabetic an acidosis of high intensity may be lessened or abolished by a sufficiently prolonged fast. This demonstration of the diabetic's paradoxical reaction to fasting is the most surprising as well as one of the most important of Allen's contributions to our knowledge of diabetic physiology and therapy.

Period of Underfeeding. Carbohydrate.—Following the period of fasting, feeding should be inaugurated by giving small but gradually increasing amounts of five per cent vegetables (see table), which, in especially severe cases, should be twice or thrice boiled in order to still further reduce their starch content. Six to ten ounces may be given the first day; then, if glycosuria does not return, these amounts may be increased by three to four ounces (90 to 120 gms.) a day until the daily ration reaches sixteen to twenty ounces (500 to 600 gms.). After this the amounts should be increased daily by about three ounces (100 gms.) of the 5 per cent vegetables or correspondingly smaller amounts of 10, 15, and 20 per cent vegetables, 5 and 10 per cent fruits, and later, in mild cases, such foods as bread and cereals, until the patient is taking about one ounce of carbohydrate to twenty pounds of body weight (3.0 gms. per kilo). During this period the urine should be tested for sugar and also diacetic acid, using 24-hour or better 12 or 8-hour specimens. Reappearance of sugar or diacetic acid requires stopping all food for twenty-four hours and resuming feeding with about half as liberal a ration.

Proteids.—When there has been no glycosuria for two days, two or three eggs may be given, and, if no bad results ensue, these may be increased two each day until six are taken daily, or meat may be given, increasing the amount by about two ounces (60 gms.) daily until the patient

is taking about 1-6 ounce of proteid (about 2-3 ounce of meat) per 10 pounds body weight (1.0 gm. proteid per kilo) daily. Reappearance of sugar or reappearance or increase of diacetic acid calls for the same measures as if caused by too much carbohydrates. In severe cases with little or no carbohydrate tolerance, Joslin advises that only about three-quarters of this ration be given. In mild cases fifty per cent more (1.5 gm. per kilo) may be given later if desirable.

Fat Tolerance.—Soon after proteids are given small amounts of fats ($\frac{1}{2}$ to 1 oz.—15.0 to 30.0 gm.) may be given in the form of butter or bacon (3 or 4 oz. of broiled bacon equals 1 oz. of fat). This should be increased very slowly or not at all until the patient is getting his necessary proteid ration. Then the fat may be increased by $\frac{1}{2}$ to 1 oz. (15.0 to 30.0 gms.) daily until the patient holds his weight or is receiving about two-thirds oz. per 10 lbs. body weight (4.0 gm. per kilo).

In contradiction to accepted views, Allen emphasizes the fact that a too liberal fat ration may lead to the reappearance of sugar or diacetic acid in the urine, and he insists that the failure to recognize this point has been a large factor in the failure of treatment in many diabetics.

Not only must the patient remain within his tolerance for each type of food, carbohydrates, proteids, and fats, but the physician must see to it that the total energy value of the diet shall not exceed the patient's tolerance. The reason for this appears to be as follows:

The diabetic organism (except perhaps in extremely rare instances) retains in varying degrees the power to combust some carbohydrate and will do this unless it can satisfy its needs by the combustion of other food materials, such as either proteids or fats. We must, therefore, constantly give the diabetic only enough food to barely cover his needs, and so, as it were, force to burn carbohydrates in place of other material. Whether this hypothesis be true or not, diacetic acid may be made to reappear in the urine by feeding too large amounts of fats.

Control of Weight.—In diabetic patients we have been accustomed to consider a gain in weight as a good sign and as something to be desired. Here, again, Allen's view is opposed to that generally accepted. Unless the patient is decidedly under his proper weight (which does not necessarily mean his former weight), he believes that a gain in weight is distinctly undesirable and fraught with danger to the patient. As a rough general rule, he advises that the patient be brought back to a weight ten to fifteen pounds under his former figure, if this represents a fair degree of nutrition, while in obese cases he considers it best to reduce the weight, at times very decidedly.

In this connection it is absolutely impossible to dogmatize, for each case will be to a large extent an individual problem. The idea underlying the principle of limiting the weight of the patient is that both theory and experience indicate that the weakened pancreas is often able to handle the carbohydrate function only for a body of a certain limited weight, and that it breaks down and becomes inefficient when called on to do the work necessary for the maintenance of a larger one.

Periodical Fast Days.—If the carbohydrate tolerance is very low (below 2-3 oz. or 20.0 gms. of carbohydrate), a weekly fast for 24 hours must be insisted on. By less severe cases, with a tolerance up to 2 oz. (60.0 gm.), one-half the usual ration may be taken every seventh day, but

on this day carbohydrates are allowed only in the form of 5 per cent vegetables, and in amounts equaling one-half the usual carbohydrate ration. With higher tolerance the only limitation on the "fast" days need be the limitation of the carbohydrates to 5 per cent vegetables.

These fasting or partly fasting days are of great importance and benefit to the patient for two reasons. One is that they build up and protect the tolerance. The other is that they serve to keep the patient cognizant of the necessity of care in his diet.

Those individuals who develop a fairly high tolerance for carbohydrates may finally work back to a relatively liberal diet, one to which they may adhere without much self-denial. Still "once a true diabetic, always a potential diabetic," would appear to be a good "confessio credis" in this field of practice. Such patients should, if possible, be persuaded that, while they are in one sense cured, the price they must pay for a permanent cure is the persistence of care in eating, so as to take, as far as may be necessary, the strain off their permanently weakened power of burning up sugar and starch. They must also be convinced that any return to glycosuria is an imperative command to immediately fast for at least twenty-four hours and to again undergo a period of careful dieting, which fortunately will almost invariably be far less trying than the original one.

The necessary limitations of space make it impossible to more than indicate the general principles and a few of the details of this treatment. For further enlightenment it will be necessary to refer to some, at least of the articles enumerated in the accompanying bibliography. Among these Joslin's first article should prove especially helpful, while the little booklet of Hill and Sherrick, containing a number of diets, should prove useful in carrying out the dieting.

The success or failure in any case will depend on the willingness of the physician to devote the necessary time and care to seeing that the essential details are attended to properly, and also on his ability to convince patients that "all this fuss" is worth while. Good results will in no case be obtained without considerable cost of time and trouble to the physician and an equal or greater cost of patience and self-denial on the part of the patient, but the results will be worth while. Grave cases should, if possible be treated in well-equipped hospitals and by those who have had experience in handling such cases, but mild or emergency cases should and can be treated by any competent physician. There is one class of case in which the writer would especially urge the trial of Allen's plan. This is in diabetics with a surgical complication, such as gangrene, carbuncle or septic infection. Up to the present nothing, as far as the writer knows, has been published about such cases, but from personal communications he knows that in such conditions this treatment has proved of striking value. Recently he has seen, with Dr. F. W. Parham, most gratifying results from its employment in a severe diabetic with extensive gangrene and still more extensive accompanying cellulitis.

In conclusion, it will, I think, interest physicians to learn that this valuable and important stride in therapy is the direct result of, and could not have been accomplished without, animal experimentation. Everything new and valuable brought forth by Dr. Allen came to him through the animal experiments carried out by him during a number of years, and everything tried out on his human patients was first tried out and its

value demonstrated on dogs in which he had induced diabetes of varying intensity.

Some of the accompanying tables are condensed and somewhat altered from Joslin's article:

Carbohydrate-free foods.—Meats, fish, broth, gelatine, eggs, butter, oil, coffee and tea. Substitute for sugar, saccharin, which most patients do not like.

Vegetables 5 per cent.—Asparagus, brussels sprouts, cabbage, cauliflower, egg plants, cucumbers, kohl rabi, lettuce, pumpkin, radishes, rhubarb, spinach, sauer-kraut, tomatoes.

Vegetables 10 per cent.—Beets, carrots, mushrooms, okra, onions, squash, turnips.

Vegetables 15 per cent.—Artichokes, lima beans (canned), parsnips, peas (green).

Vegetables 20 per cent.—Beans (baked), corn (green), macaroni (boiled), potatoes, rice boiled.

Fruits 5 per cent.—Olives (20 per cent fat), grapefruit.

Fruits 10 per cent.—Blackberries, cranberries, lemons, oranges, peaches, strawberries.

Fruits 20 per cent.—Bananas, plums.

With vegetables of the 5 per cent group reckon only about 3 per cent actually available and for 10 per cent group about 6 per cent.

Miscellaneous.—Meat contains about 20 to 25 per cent of proteid when cooked and 5 to 25 per cent of fat, broiled bacon about 8 per cent proteid and 30 per cent fat, fish about 20 per cent proteid and 10 to 25 per cent fat, an average size egg 5 grms. or 1-6 oz. proteid and nearly as much fat, bread about 50 per cent starch, grits (cooked about 20 per cent starch, cornbread about 50 per cent starch, butter 85 per cent fat, milk $3\frac{1}{2}$ per cent proteid and fat and 5 per cent sugar, gravity cream 20 per cent fat.

Bread substitutes usually contain almost as much starch as ordinary bread. Huntley and Palmer's Akoll biscuits contain only a small amount of starch and are well liked by many patients. Hermann Barker, 433 Broadway, Somerville, Mass., supplies several gluten flours of different carbohydrate content. Casoid flour (Thos. Leeming & Co., N. Y.) contains 85 per cent proteid, but no starch. The writer has found that some patients get much satisfaction out of bran breads, made with equal weight of bran and flour and containing approximately 25 per cent. of starch. Hoyt's Dainty Fluffs No. 1, containing less than 10 per cent starch and about 80 per cent proteid, and Dainty Fluffs No. 2, containing about 25 per cent starch, may be obtained from Pure Gluten Food Company, 90 W. Broadway, N. Y.

A sample diet for a severe diabetic weighing 60 kilograms (130 lbs.) follows (Joslin):

Food—	—Quantity—		
	in grams	in ounces	Calories
Carbohydrates	10	$\frac{1}{3}$	40
Proteid	75	2.5	300
Fats	150	5.	1350
Alcohol	15	$\frac{1}{2}$	105
Total			1795

THE DIFFERENTIAL DIAGNOSIS OF GASTRIC ULCER.—The pain of angina pectoris does not have the periodicity characteristic of ulcer. The pain is seated behind the cardiac region, and radiates into the left arm.

Cholelithiasis is the cause of sudden pain attacking a patient in full health. The painful paroxysms have no regularity and they are often associated with alimentary excesses or faults of diet.

Intestinal colic is associated with constipation or diarrhea. Its duration ordinarily is short. It is associated with intestinal trouble.

Pancreatic calculus, embolism of the mesenteric vessels and lead-colic should also be considered. It will suffice to suggest these here.

In cancer of the pylorus, gastric acidity descends to beneath normal. This sign hardly ever deceives. It is more important than the presence of lactic acid, since the latter can be formed only in cases of hypochlorhydria or achlorhydria.

The vomiting due to ulcer may be confounded with that of the gastric crisis of tabes and with nervous vomiting. Here also one should remember that pain from ulcer appears more or less early after eating, and that these attacks are in the epigastrium, violent, agonizing, and may radiate to the sacral region. This is a sign which rarely deceives.—*Amer. Med.*

CONDENSED MILK.—W. H. Park, M. C. Schroeder and P. Bartholow, (*New York Medical Journal*, November 27, 1915,) give the results of their studies of condensed milk as follows: The value of sweetened condensed milk depends on the care and cleanliness used in its manufacture. There is no evidence that the bacteria or chemical constituents affect the health. When fed to infants, only the best grades of sweetened condensed milk should be employed. When carefully prepared from whole milk, sweetened condensed milk has special indications as an infant food. Many infants are unable to digest the fat of cow's milk, even though mixed with two or three volumes of water. In these cases the infant will vomit half digested curds of casein. A change to sweetened condensed milk will allay the vomiting. This milk usually has a constipating effect; it is not believed that it causes diarrhea. Clinical evidence shows that intestinal irritation caused by milk is due to the absence of fat, sugar and protein. Sugar is believed by these authors to have a food value superior to fat.

THE DIAGNOSIS OF SLIGHT HYPOTHYROIDISM.—Lewellys F. Baker, of Baltimore, in his monograph "Some of the Commoner Types of Diseases of the Endocrine Glands," gives some important suggestions regarding the diagnosis of minor hypothyroidism, and calls attention to the fact that this condition is very often entirely overlooked.

In examining children for this condition, three principal points should be kept in mind: (1) retarded growth; (2) habitual constipation and (3) dullness in the school-room.

In adults there are a number of suggestive diagnostic indications: (1) persistent constipation; (2) endogenous obesity; (3) a dry, harsh skin; (4) subjective feelings of cold and (5) recurring drowsiness in the daytime.

Barker advises the therapeutic test in all cases where there is any doubt of the presence of a minor thyroid insufficiency. This is best carried out by giving increasing doses of desiccated thyroid gland, commencing

with $\frac{1}{2}$ grain, three times a day, and increasing the dose by $\frac{1}{2}$ grain at intervals of two or three days, until 5 grains, three times a day, is being taken; and watching the symptoms very carefully throughout.

We believe that this dose limit is rather high. Fifteen grains *per diem* of thyroid, in minor hypothyroidism especially, is a large amount, and may cause unpleasant results.—*Amer. Medicine*.

STUDY OF THE NON-TUBERCULOUS INFECTIONS OF THE RESPIRATORY TRACT, WITH SPECIAL REFERENCE TO SPUTUM CULTURES AS A MEANS OF DIAGNOSIS.—Leretscher's paper on this subject contains much practical information. His conclusions may be stated as follows:

1. Sputum cultures have been neglected because of the confusing results obtained, and the mixture of organisms found.

2. These results are due to unsuitable mediums and bacteriological methods.

3. By means of fresh blood agar plates, practically pure cultures can be obtained in 95 per cent. of the acute non-tuberculous infections of the respiratory tract of adults.

4. The pneumococcus is the cause of 62.44 per cent. of all the non-tuberculous infections below the larynx, and the influenza bacillus in 28.5 per cent. These two organisms cause 90.94 per cent of the infections of the bronchi and lungs; 74.96 per cent. of the infections of the larynx; and 31.29 per cent. of the infections of the nose, throat, and sinuses.

5. The streptococcus, contrary to common belief and text-books reports, is only rarely the cause of infections in the lungs, and when found is usually associated with complications such as lung abscess, bronchiectasis, carcinoma, etc. In infections of the head, however, it assumes the predominant role, especially in the tonsils.

6. The staphylococcus aureus was never found to be the cause of the acute infections of the lungs or larynx, and only once was it found in acute coryza and acute sinusitis.

7. The micrococcus catarrhalis may cause rhinitis, laryngitis, acute bronchitis, and acute bronchopneumonia. It was found in pure culture in three out of thirty-seven cases of acute rhinitis, five out of thirty-eight cases of acute laryngitis, and in one each of acute bronchitis and primary bronchopneumonia.

8. The colon and typhoid bacillus rarely if ever produce acute lesions in the lung. The typhoid bacillus, however, may produce lung abscess following an infarct.

9. There is a unity of infection of the respiratory tree. The same organisms which cause the infections of the bronchi and lungs also cause the infections of the nose, sinuses, and larynx.

10. Sputum cultures afford an easy, quick, and reliable method of diagnosis of pulmonary infections. Since the blood cultures are negative in 70 per cent. of the cases of pneumonia and negative in nearly all of the other infections of the respiratory tract, it is practically the only means of making an etiological diagnosis in the non-fatal infections.

11. This etiological diagnosis is necessary for a rational advance in prophylaxis and specific therapy. It is also a great aid in making an early

diagnosis, and helps us to give an intelligent prognosis. This is especially desirable in private practice.

12. By means of these cultures we have also obtained a wider knowledge of what lesions a given organism may produce. These cultures show that each organism may produce a variety of acute lesions. Especially valuable information is afforded in that they show that influenza bacillus and pneumococcus may produce chronic lesions extending over many years. This has an especial bearing on differential diagnosis, in regard to whether or not a given chronic chest condition is tuberculous.—*Archives of Internal Medicine*.

ACUTE OTITIS MEDIA IN INFANCY.—In the *Boston Medical and Surgical Journal* of October 21, 1915, Emerson says that in all primary infections of the respiratory tract, and especially in affections of the respiratory tract secondary to contagious diseases, care should be exercised to keep the nasopharynx free from mucus and crusts that may cause occlusion of the Eustachian tube. Two or three drops of liquid albolene or of a 10-per cent. solution of argyrol may be introduced into each nostril three times a day. During the stage of acute nasal congestion steam inhalations are helpful. An even temperature should be maintained in the room. The child should be protected from strong winds and dust. The air in overheated houses and flats becomes exceedingly dry and consequently irritating. Receptacles for water attached to the side or placed on top of radiators will evaporate one to two gallons daily, appreciably increasing the humidity. In older children the following ointment is employed:

Menthol, grs. vij;
Eucalyptol, grs. vij;
Lanolin, drachms vj;
Vaselin, drachms ij.

Applied inside the nostrils this protects the congested turbinates and so keeps the nares clear. Also in older children, in cases of excessive discharge from the throat, irrigations of hot normal salt solution two or three times a day free the nasopharynx from mucus. The irrigation may be done by the physician with a metal syringe or by the nurse with a fountain syringe, inserting the glass part of a curved eye-dropper into the end of the rubber tube and so directing the stream into the throat and allowing it to flow out into a pus basin, with the patient lying in bed. A spray of menthol, 5 grains, and benzoinol, 1 ounce, should be used with an atomizer to protect the inflamed mucous membrane from irritation. Swabbing the throat with iodine, 20 minims to the ounce of glycerin, is also useful.

If, notwithstanding these precautions, the Eustachian tube becomes occluded and the drum membrane begins to show congestion along the handle of the malleus, the following treatment should be given to open the tube: a mixture of four drops of adrenalin solution 1 to 5000, and cocaine one-half to 1 per cent., should be allowed to flow through the nostril on the affected side, back into the throat, the patient's head being tipped backward in such position as to cause the solution to flow toward the orifice of the tube. This should be followed in five minutes with a few drops of a 20-per-cent. argyrol solution, which by its higher specific gravity keeps the tube open. This should be repeated in three hours if

there is pain. Frequently the symptoms, congestion and temperature, will disappear with this treatment. If, however, the inflammatory process continues to progress and the symptoms increase, the drum should be incised without waiting for bulging or pus. The operation should be performed by the aurist, if available, otherwise by the attending physician, because the majority of these cases have a mixed infection, and a delay of even a few hours may result in rupture of the drum and burrowing of pus into adjacent structures. The attending physician can safely make a curved incision of the drum, extending from the posterior lower quadrant up to the attic, under direct vision. A rapid fall in temperature and alleviation of symptoms should follow. Repeated incisions should be made, if necessary, for free drainage, but it should be remembered that obstruction of the Eustachian tube in the throat may prolong a discharge from the ear. In infants etherization is not necessary, but in older children enough ether should be given to allow time for a careful and accurate incision. The other ear should be watched with special care as a double otitis is frequent.

In every case of contagious disease and of affections of the respiratory tract in children, measures should be inaugurated at once to keep the nasopharynx clear and so maintain drainage through the Eustachian tube. In such cases the ear drum should be inspected at every visit of the physician.

An electric ear instrument gives a clear picture of the drum with a minimum disturbance of the child.

In cases of otitis media when the symptoms and the local condition do not improve under treatment, the drum should be incised by the aurist, if available, otherwise by the attending physician, without waiting for bulging or pus.

Every child after an attack of acute otitis media should have his epipharynx examined and treated by a specialist trained to recognize the close relation of the nasopharynx to the ear.—*Therap. Gazette*.

EARLY DIAGNOSIS OF GASTRIC CANCER.—Julius Friedenwald, of Baltimore, in the March issue of *International Clinics*, calls attention to the difficulties encountered in making an early diagnosis of gastric cancer. His observations are based upon an analysis of one thousand cases occurring in his personal practice.

The diagnosis of cancer of the stomach is exceedingly simple in the advanced cases, but when the affection is still in its incipency there is nothing more difficult to determine. The onset of this affection is sudden in a large proportion of cases, 77 per cent. in this series and only 7.3 per cent. direct histories of ulcer, whereas, but 23 per cent. present histories of previous gastric disturbances.

In arriving at an early diagnosis the following are the most important signs and symptoms to be considered:

(1) Loss of Flesh: Loss of flesh is a sign of considerable importance having occurred in 98.5 per cent. of these cases. Periods of improvement with gain of flesh occur at times in the early periods of this disease, and this fact should be kept in mind.

(2) Pain: Pain was present as an early sign in 84 per cent. of his

cases, but because of its variation as to location and extent, its diagnostic value is lessened.

(3) Anorexia: Anorexia is a very prominent symptom of gastric cancer, and was observed in over 89 per cent. of his cases. The aversion for meat, which frequently occurs early in the disease is of diagnostic import.

(4) Vomiting: Vomiting occurred in 89 per cent. of the cases. While this symptom is frequent it presents such slight relationship to food that it can be accorded only minor importance.

(5) Dysphagia: Dysphagia appeared in 6.9 per cent. of the cases. It appeared as an early sign in 78 per cent. Occurring in patients over forty years of age, it is a sign of great significance.

(6) Hematemesis: Gastric hemorrhage occurred in 28.7 per cent. of the cases, but in only 21 per cent. of these did it appear as an early sign. Since hematemesis appears only in a small proportion of cases it cannot be relied upon, but when it occurs in the coffee ground form it presents additional evidence in the diagnosis.

(7) Melena: Tar colored stools appeared in 18.9 per cent. of the cases, but in only a few of these did it occur as an early sign. Occult blood is found in 92.5 per cent. of the cases, and in this analysis it was found to be a constant as well as an early sign of gastric cancer.

(8) Presence of Palpable Tumor: A palpable mass is the most valuable diagnostic sign of a gastric cancer, but as it is usually a late manifestation of the disease it cannot be relied on as an early sign.

(9) Dilatation of the Stomach: Dilatation of the stomach due to pyloric stenosis occurred in 47 per cent. of the cases and in 52 per cent. of these it appeared early in the disease. Partial stenosis, when ulceration can be excluded, is of the greatest significance in the early diagnosis of cancer.

(10) Ascites and Edema of the Extremities: Ascites and Edema are late manifestations of gastric cancer.

(11) Changes in the Gastric Secretion: (a) Absence of free hydrochloric acid occurred in 98 per cent. of cases and 76 per cent. of these it appeared as an early sign. Since free hydrochloric acid is absent in other conditions besides cancer, much of its significance as an early sign is lost. (b) The diagnosis of cancer is greatly strengthened when, in the absence of free HCl, lactic acid is found. (c) The Oppler-boas bacilli were observed in 79 per cent. of the cases. This finding when accompanied by the presence of lactic acid and absence of free HCl, is a sign of marked value. (d) The Wolff Junghans test was utilized in one hundred and six of these cases. This test is an extremely valuable sign when positive, especially when there is an absence of free HCl, with the presence of lactic acid.

(12) Serodiagnosis by Abderhalden's or Kelling's Methods: Dr. Charles E. Simon tested both of these reactions carefully with a number of the cases of this series and found them both to be unreliable and non-specific. As yet, no dependence can be placed in the results obtained by serum tests.

(13) Certain Roentgenological Findings: Roentgen ray examinations have been of great help in many instances in the diagnosis of gastric

cancer. In the early stages of this disease, the incomplete obstruction that occurs can only be revealed by the x-ray.

In summarizing Friedenwald emphasizes the importance of making a thorough study of each case and not to depend on any one particular symptom. It is only after a critical review of the history, physical examination and study of symptoms, including x-ray investigations and examination of the gastric contents and stools, that one is able to weigh the chain of evidence accumulated and reach a decision. Since surgery offers the only known cure for gastric cancer, exploratory laparotomy is urged on all individuals over forty years of age having gastric symptoms, which are not relieved after a few weeks of medical treatment.—*Med. Rev. of Reviews.*

NEPHRITIS WITHOUT ALBUMINURIA.—The case cited by Parkinson began as pneumonia in a boy of $3\frac{1}{2}$ years of age. A few days after his recovery slight edema appeared on the face, and the next day the face was extremely swollen, as also were the arms, hands, feet and legs, and the wall of the trunk. There was no evidence of fluid in the chest or abdomen. From now the urine was examined daily, but no albumin was ever found. Microscopically a few granular and hyalin casts and an odd red corpuscle or two were found on centrifugalizing. The amount of urine passed daily was normal, and fairly abundant urates were deposited on standing. On the third day the patient got very stupid, but not exactly drowsy. The blood pressure on this date was 90 mm. The edema began to disappear after three or four days under hot air baths and saline purgatives, and after ten days all casts and blood had disappeared from the urine, only a few epithelial cells from the bladder being seen on centrifugalizing. Parkinson believes this child to have had an attack of acute nephritis following but not due to pneumonia, causing edema and the presence of casts and blood cells in the urine, but without albuminuria.—*British Jour. of Children's Diseases.*

RENAL EDEMA.—Meyer refers primarily to edema of the kidney itself. We often find in autopsies on victims of Bright's disease that these organs are larger and heavier than normal because of serous saturation of both parenchyma and interstitial tissue. Edema occurs in both nephroses and diffuse glomerulonephritis, and in different stages of either; and it disappears after recovery, but also after cirrhosis has set in. Thus far we have known nothing clinically concerning renal edema, and of course there has been no indication for treatment. The author gives a specimen case, in a young woman with a high degree of anasarca, and other evidences of a nephrosis, as marked oliguria and hydremia. The causes could not be determined. It was necessary to puncture the limbs, since neither diet, heart stimulants or diuretics could unburden the kidneys. In the first twenty-four hours nearly 12,000 c.c. of fluid were evacuated in this manner, and on the second day over 2000 more. Diuresis now came about per se, but after five days of free secretion of urine the former state of edema and oliguria returned and necessitated further puncture. The resulting benefit was more lasting and patient now responded properly to salt-poor regimen; but has by no means recovered, as the ankles remain swollen and albuminuria persists; in fact, the kidneys are clearly the seat of a degenerative process or nephrosis. All evidence from the urine, when the

affection was at its worst, pointed to a condition of dropsy of the kidneys—of edematous stasis—with production of a vicious circle. The pentup serum must have compressed the functioning renal cells. The patient complained of headache, vertigo and vomiting, but there were no changes in the fundus oculi, and the heart and blood pressure remained normal. In theory decapsulation was indicated, but the author obtained a good result with a much safer intervention. Evidently there are two types of cases in regard to indications for the two forms of surgical relief.—*Munch. Med. Work.*

MEDICAL TREATMENT OF GASTRIC ULCER.—Dr. Johnson, in the *St. Paul Medical Journal*, gives the following basis of treatment:

1. Consider every case of gastric ulcer as a severe case, for any mild one may become severe in an hour's time.

2. Entirely abandon the ambulatory treatment. Absolute rest is just as important in the case of a gastric ulcer as it is in the case of a fractured femur.

3. You must diagnose ulcer much more frequently than heretofore, and must make a more thorough and much longer search for complications and sequelae, insisting upon having cases under observation for ten days where there is any doubt whatever. The surgeon must be called much oftener and quicker than he has been heretofore. No pains must be spared in looking for indications for operative measures.

4. The writer would add to the indications for surgical intervention hypersecretion and constant findings of either free or occult blood in the stools after a month of the Leube rest cure. Other important indications are: severe continued pain, chronic invalidism, and uncontrollable vomiting.

THE DURATION OF THE NURSING PERIOD IN WOMEN OF THE UNITED STATES.—A. Graeme Mitchell presents an analysis of about 3,000 cases taken from the records of the Children's Hospital in Philadelphia during the past fifteen years, from which he concludes as follows: 1. There has been no decline in breast feeding in the last fifteen years. 2. The women of the poorer class compare favorably in the period of lactation with the women of the more prosperous class in this country. 3. The women of this country compare favorably in the period of lactation with European women. 4. The average period of lactation in children entered at the hospital was six months. 5. Twenty per cent. of the women did not nurse their children; 80 per cent. nursed one week or longer; 55 per cent. nursed three months or longer; 42 per cent. nursed six months or longer; 34 per cent. nursed nine months or longer; 27 per cent. nursed a year or longer; 9 per cent. nursed eighteen months or longer, and 2 per cent. nursed two years. 6. For the reason previously pointed out, namely, the greater susceptibility of artificially fed babies to gastro-intestinal and nutritional disturbance, the infants brought to the hospital were, in the large majority of cases, bottle fed at the time of their entrance there. The conclusion is inevitable that the figures given represent the minimum of lactation.

SYPHILIS OF THE STOMACH.—Clark gives the minute details of his eleven cases, tabulating them for comparison. In three cases the patients had no suspicion of their syphilis; in five the disease had been acquired eleven, fifteen, twenty-seven or thirty years before. The stomach had given trouble for three months, eight days, ten months and eighteen months in these cases. In one case severe hematemesis on three occasions was the only symptom, and mercury soon conquered this. In another case the fatal hematemesis was the first sign of anything wrong. Clark emphasizes the resemblance between the clinical pictures in syphilis and in cancer of the stomach in certain cases.

In Clark's latest case there was stenosis of the pylorus from a tumor with much dilatation of the stomach and positive Wassermann reaction, but he was unable to determine whether the trouble was of syphilitic or malignant origin. There was no free hydrochloric acid and the man of 55 did not present the cachexia and pallor of cancer, the absence of anemia testifying also against malignant disease. The patient was ruddy and there was no trace of metastasis although the symptoms had been noted for eighteen months. He refused to take a hospital course of treatment so the diagnosis is still dubious.

POISONING FROM DENATURED ALCOHOL.—Eleonskaia comments on the extreme frequency of poisoning from denatured alcohol in the Petrograd hospitals soon after the sale of liquors was forbidden. From 123 to 332 persons per month were treated in one hospital, while in another during the six months, 1,292 cases were admitted. As denatured alcohol contains about 1 per cent. of wood alcohol which affects the vision, causing amblyopia, the latter was a very common occurrence in cases of denatured alcohol poisoning. Of 1,432 men treated during 1915 for poisoning from denatured alcohol, 6 per cent. suffered from amblyopia. Half of this number drank denatured alcohol only, while others used in addition cologne water and furniture polish. It required three or four months for the onset of visual disorders, and this occurred usually only after large quantities of alcohol had been imbibed. The main symptoms were decline in visual acuity, especially of central vision, and disturbances in color sense, especially for red and green. Occasionally central scotoma for all colors was observed, including white. Narrowing of the field of vision was observed in 15 out of 40 cases examined, and the fundus was found changed in 61 out of 96 cases (hyperemia of the papilla, blurred outline, pallor of the temporal half of disk, etc.) The pupils were usually normal. Abstinence from further use of denatured alcohol brought in many cases improvement of vision, but very slowly and imperfectly. In general, the visual disorders caused by the use of denatured alcohol are milder than those brought on by pure wood alcohol, but they are more severe than those from plain alcohol.—*Jour. A. M. A.*

EXCRETION OF SALVARSAN AFTER INTRAVENOUS INJECTION OF CONCENTRATED SOLUTIONS.—Stearn made 420 examinations of urine from 200 persons who had received salvarsan in definite concentration in a vein. He found that under these conditions elimination goes ahead more slowly than when salvarsan is infused in dilute solutions. In theory as well as

from the experience of clinicians, the longer the drug stays in the blood the better the therapeutic effects. The slow escape of residues of arsenic in the tissues is not concerned here, *i.e.* there is no strict parallelism between the two. Weak reactions in urine tests should not necessarily be accepted as positive. One of the tests for salvarsan in the urine is addition of an alkaline solution of resorcin. When the drug is escaping in the desired quantity the resorcin in solution is colored a pronounced red and a red ring is formed. This can be interpreted as indicating the escape of the injected salvarsan from the blood. If this color reaction is feeble it has no significance in this connection. This superiority on the part of the intravenous injection of concentrated solutions synergizes well with the relative simplicity of technique.

THE TREATMENT OF TUBERCULOUS ADENITIS BY ROENTGEN RAYS.—Russell H. Boggs says that cases of tuberculous adenitis formerly were referred to the Roentgen ray treatment on account of the operation leaving unsightly scars, but today this is not the chief reason. It is because operation is followed by frequent recurrence, as well as more danger of producing general tuberculosis. Besides, many believe the end results of radiotherapy are much better. Radiotherapy stands on a different plane than it did two years ago. The same massive radiation is not indicated in the treatment of tuberculous adenitis as in the treatment of malignant disease. The Roentgen ray is the best method of treatment when the glands have become widely scattered and are broken down. Where there is pulmonary involvement, the writer believes the Roentgen ray, together with good hygienic treatment, is the only method to be considered.—*N. Y. Medical Journal*.

REMARKS ON NARCOTICS.—Among the thousands of drug-users that I have treated or known, I have never seen an Italian, a Hungarian, a Russian or a Pole. Moreover, I have met with only four cases of drug-taking by Hebrews. What is commonly spoken of as the 'American type,' highly nervous, living under pressure, always going to the full limit, or beyond, is peculiarly liable to disorders that lead to the habitual use of drugs.

The habitual users of drugs in the United States come from every grade of society. Professional men of the highest responsibility and repute, laborers wearying of the dullness in a mining camp, literary men, clergymen, newspapermen, wire-tappers, shoplifters, vagrants, and outcasts—all are among the number.—*Med. Rev. of Reviews*.

NEURASTHENIA IN SOLDIERS ON ACTIVE SERVICE.—Gerver found from repeated observation of neurasthenia in soldiers that it manifests itself in the war environment with the same clinical symptoms as in time of peace. The specific features are impulsive ideas and phobias; even the entire sphere of consciousness may suffer. The existing conditions of warfare imprint special features on the neurasthenia. The forms with agitation show during periods of hot battling, while trench warfare elicits the more torpid forms of neurasthenia. The physical symptoms also are the same as in time of peace, headache, dizziness, tinnitus and diminished hearing. Clavus, that is, an acute sharply localized pain, especially in the occipital

region, is also very common, and hysteria is a frequent complication.—*Journal A. M. A.*

MENTAL DISTURBANCE IN SOLDIERS.—According to Urstein's observation, psychic disorders caused by brain trauma develop usually only when more or less extensive portions of the gray matter of the cortex are involved, though it is possible for even circumscribed lesions of the brain as, for instance, fracture of the skull, hemorrhages, etc., to affect the mind. The immediate result of brain trauma is mental confusion. The patients appear somnolent, dazed, forgetful and absentminded. In severe cases unconsciousness may last for hours and even days. Other symptoms are headache, fainting, dizziness, vomiting, slow pulse, pupil disturbances, paralysis and convulsions. The mental confusion usually shows immediately after brain trauma, but in some cases only after an interval of hours or days. In addition there are observed changes in the character; excessive sensitiveness, excitability and irritability, exhilaration, maniacal states and hypochondriac ideas. In general, the clinical picture resembles that of traumatic delirium. The symptoms of delirium become more pronounced when the course is unfavorable, which may be due to abscess formation or to a meningo-encephalitis. In such cases somnolence sets in, followed by coma, convulsions, paralysis and rise in temperature.

The most frequently observed psychosis was catatonia, next in frequency, psychopathic constitutional anomalies, epileptic insanity and finally manic-depressive states. Urstein has also encountered cases of the so-called exhaustion psychoses, hysterical psychoses and progressive paralysis of the insane. The latter was observed only in soldiers over 30 years old. There does not seem to be any specific psychoses, according to Urstein. He claims that a psychosis develops only when there was a certain predisposition. That is, the elements of the psychosis were present before the man went to war; the latter but hastened its development. In general the so-called war psychoses do not differ from those in time of peace though the clinical symptoms may be somewhat peculiar depending on the character of the warfare.—*Jour. A. M. A.*

THE RESULTS OF THE EXAMINATION OF CULTURES FROM SUSPECTED CASES OF DIPHTHERIA AND OTHER PHARYNGEAL AND NASAL CONDITIONS.—Moffit reaches the following conclusions from an investigation he has carried on:

1. Diphtheria cannot be diagnosed in its early stages without the assistance of the laboratory.

2. In cases of negative reports on examinations for diagnosis, subsequent cultures should be taken in suspicious cases, to eliminate the possibility of mistakes.

3. The throats of patients having had diphtheria are not free from the bacteria at any given time after the onset of the infection.

4. Negative cultures should be found before quarantine for diphtheria is removed.

5. When diphtheria bacilli persist in the throat after all other manifestations of the disease have disappeared, they may often be readily eliminated by the use of buttermilk as a gargle.

6. Virulent diphtheria bacilli may be present in a nose or throat without causing any symptoms in the nose, though capable of causing the disease in contacts.

7. Membranous laryngitis or croup may be caused by the pneumococcus, and such an infection may prove fatal.—*Penn. Med. Jour.* Oct. 1915.

SPONTANEOUS RUPTURE OF THE SPLEEN.—Cannaday, J. E.—*Surg., Gynec. and Obst.* 1915, XXI, 747.—The author in an extended search and review of literature was able to discover only one case of spontaneous rupture of a tubercular spleen, the author's case is described below. The largest number of cases was reported by Berger. He reports 132 cases of pathological rupture of the spleen. In the order of frequency they are; (1) malarial; (2) simple enlargement, with no cause given; (3) typhoid; (4) in pregnancy; (5) leukaemia; (6) hereditary syphilis; (7) cirrhosis of the liver; (8) tuberculosis; (9) haemophilia.

Primary tuberculosis of the spleen is rare. Only a few cases have been diagnosed prior to operation or autopsy. The secondary involvement is more common in children than in adults.

In both forms the spleen is moderately enlarged; the parenchyma is soft, swollen, dark red in color, and scattered over minute, round gray tubercles.

In the chronic form cheesy nodules, as large as hazelnuts, may rarely be found, since death usually occurs before such change has taken place.

Splenectomy is indicated provided the diagnosis can be made and the tubercular process is not acute in other parts.

The author's case was a barber 24 years of age. Had had the usual infectious diseases of childhood and was never very robust. He had been feeling badly for one year, with occasional abdominal pains. Had pains in joints and fever for six weeks. He was treated for six weeks by baths and other anti-rheumatic treatment at Mt. Clemens. While returning home on the train was seized with a sudden severe abdominal pain which was followed by marked shock. Temp. 98, pulse 140, with small volume. Dullness in both flanks. On operation the spleen was found to be ruptured on its median aspect by a tear 15cm. x 10 x 3. The spleen was covered by numerous tubercles and the interior of the splenic substance showed numerous pockets filled with caseous material. Splenectomy was done with good recovery. The patient left the hospital on the 14th day.

J. G. SPACKMAN.

THE SURGICAL TREATMENT OF THE TUBERCULAR URETER IN THE FEMALE.—D. Bissel (*Surg., Gynec. and Obst.* 1915, XXI, 615.)—Bissel believes in conjunction with numerous other authors quoted in his article that nephrectomy alone is insufficient to effect a cure in cases of renal tuberculosis, statistics showing that almost all cases of renal tuberculosis show a corresponding descending infection of the ureter.

He believes that, 1. A complete ureterectomy should be performed. 2. That the combined transperitoneal and retroperitoneal route should be the operative procedure of choice.

The diagnosis may be assisted by the digital examination of the thickened vesico-vaginal portion of the ureter and by the characteristic

"golf hole" appearance of the ureteral opening. These taken in conjunction with other common objective and subjective symptoms.

TECHNIQUE.

1. Trendelenberg position. 2. 7 cm. median incision. 3. Lift fundus up to pubic arch by traction on suture passed through uterus at the junction of fundus and cervix. 4. Remove ovary from operative field by suture through it and outer portion of round ligament. 5. Incision through peritoneum to the outer side of the ureter where it passes over pelvic brim down to within 1cm. of cervix and upward to coecum if necessary. 6. By blunt dissection expose ureter to below uterine artery. 7. Ligature ureter below uterine artery with no. 1ch. catgut. 8. Protect field with gauze properly placed. 9. Cut ureter below ligature and clip placed above it. 10. Cauterize with carbolic. 11. By blunt dissection free ureter upward and fold on itself in the retro-peritoneal space thus created. 12. Suture peritoneum and close abdominal wound as usual.

SECOND OPERATION.

1. Expose and deliver kidney. 2. Separate fibrous from fatty capsule. 3. Ligature vessels separately and cut kidney from vessels close to concave margin. 4. Locate and remove coiled up ureter together with kidney. 5. Suture layer by layer as usual.

J. G. SPACKMAN.

THE OPERATIVE TREATMENT OF PYLORIC OBSTRUCTION IN INFANTS.—Wm. A. Downes (*Surg. Gynec. and Obst.* 1916, XXII, 251.)

The author reviews the symptoms, diagnosis, pathology, treatment and mortality in 61 cases of pyloric obstruction in infants as follows:

He believes that a true malformation is present at birth which is a thickening of the circular muscle fibers at the pylorus and that the continued efforts of the stomach to pass food through produces an alteration in the circulation, which in turn produces oedema. This is shown by some cases which were temporarily relieved by decreasing the amount of food, frequent lavage, but the cases subsequently presented symptoms of acute obstruction with the resumption of increased diet.

The size of the stomachs were average. Projective vomiting, palpable tumor, peristaltic waves, gastric retention and loss of weight form the symptom complex.

Examination is sometimes assisted by light ethyl chloride inhalation anesthesia and by the use of the stomach tube which relieves the distention of gas in the stomach.

Two operative procedures are discussed, i. e. posterior—gastro-enterostomy and pyloroplasty by the method of Rammstedt.

He believes that the Rammstedt operation gives the best results on account of its simplicity and the short time required. The tumor is grasped between the thumb and forefinger and a longitudinal incision 2-3 cm. in length is made through the hypertrophied musculature down to the thickened mucosa. This is spread by scissors opened in the incision beginning from the stomach outward. The tumor is then dropped back in the abdomen. The mucosa is sufficiently strong to hold unsupported by the muscle fibers.

A modification of this operation is done by passing a No. 20 French catheter through an opening made in the stomach and continuing out the pylorus. The results of this operation are not as good as the original.

The average age was 6 weeks, youngest 3 weeks, oldest 20 weeks. Of 31 cases in which gastro-enterostomy was performed, the mortality was 35 per cent. The mortality of the pyloroplasty was 23 per cent.

J. G. SPACKMAN.

CAUDAL ANESTHESIA IN GENITO URINARY SURGERY.—B. Lewis. (*Surg., Gynec. & Obst.* 1916, xxii, 263.)—The author reviews the history and anatomy, and points out the location, formation and direction of the sacral canal and foramina or sacral hiatus. He points out the fact that there is no connection between the sacral and spinal canal because of a closure of the dura at the second sacral segment. That the chief divisions of the sacral plexus are the sciatic and pudic nerves, the terminal branches of the latter supplying the skin, penis, scrotum, perineum, prostate and bladder.

The solution used is a combination in equal parts of a 1 per cent. solution of novocain and a 1 per cent. solution of potassium sulphate in freshly distilled water, to this 2 gtts. of adrenalin 1,1000 sol. are added to each 30cc. of the fluid. The dosage is from 40-90 cc. About 15 minutes must elapse before beginning the operation. The technique is as follows:

The patient is placed on the right side with knees well flexed and head slightly elevated. (2) Prepare the field for puncture with benzene and iodine. (3) Infiltrate the skin and puncture it and the membrane covering the sacral hiatus. During this the needle is held at an angle of 45 degrees. After the hiatus is entered the needle is placed parallel to the plane of the back. (4) The wire is now withdrawn from the needle. If it is followed by blood a vein has been punctured. If by clear fluid the spinal canal has been opened. (5) The needle is now advanced slowly about 1-1.5 inches after it has pierced the membrane covering the hiatus. (6) The solution is now injected slowly 20 cc. at a time.

The dangers are the injection of the fluid into a vein or into the spinal canal.

The advantages are that of any local anesthesia over a general in aged, debilitated and septic patients.

J. G. SPACKMAN.

TYPHOID PERFORATION, PERITONITIS; REPORT OF AN UNUSUALLY INTERESTING CASE.—F. D. Smyth. (*Int. Nat. Jour., of Surg.*, 1916, xxix, 87.)—the author reviews the prevalence and high mortality rate of typhoid. He describes the symptoms, possible, probable and presumptive and positive of perforation. He points out the uselessness of the white cell count unless they have been made at regular intervals previous to the suspected perforation. (2) That immediately after the onset of a sudden sharp pain, particularly after the 10th day a surgical consultation should be had at once.

The following is the report of the case:

Male, age 42. Past personal history negative. While engaged in a friendly wrestling match he felt a sudden severe pain in the hypogastric region followed immediately by vomiting and a desire to go to stool. Shock and collapse soon followed. 7 hours afterwards the temperature was

100. The pulse 84. Upon operation a minute perforation was found at the ilio-jejunal junction. The intestines were distended, and covered with fibrin. The perforation was sutured. There was drainage by 4 tubes through stab wounds. He was discharged on the 15th day. There was a negative Widal for 7 successive days. Blood culture negative on the 3rd day. The Widal was positive on the 8th day. J. G. SPACKMAN.

PROPHYLAXIS OF TETANUS.—The comparatively large experience of tetanus afforded by the casualties of the present war has given an opportunity of confirming the high estimate of the value of serum injections in the prevention of tetanus, though as yet not with a completeness and accuracy which might seem desirable.

MacConkey (*British Medical Journal*, Dec. 11, 1915), quotes the "Memorandum on the Treatment of Wounds in War" to the following effect:

"The prophylactic use of tetanus antitoxin is a proceeding of well-established value.

"Since, in the first two months of the war, more cases of tetanus occurred than had been anticipated either by ourselves or our Allies, it was decided to direct that a preventive dose of serum should be given to every wounded man. The results have been excellent, and in the last six months there have been only 36 cases of the disease among those who received a preventive dose of serum within twenty-four hours of being wounded.

"The preventive dose of 500 U. S. A. units should be given subcutaneously at a distance from the wound at the earliest possible moment. In severe wounds medical officers not infrequently give 1500 units; there is no objection to this, but at the same time there is no evidence that the smaller dose is insufficient if given promptly."

The German reports are practically unanimous in corroboration of the views thus expressed. As to the incidence of tetanus Hinterstoisser states that in the Franco-Prussian war there were among 95,000 German wounded 350 cases of tetanus, or 0.36 per cent. whilst on the western front during two months of 1914 there occurred among 27,677 German wounded 174 cases of tetanus, making 0.62 per cent. In the Crimean war, of 12,094 wounded English 19 had tetanus (0.15 per cent). In the American Civil War, of 217,000 wounded there were 505, or 0.2 per cent. Of 51,700 Russians wounded in the Russo-Turkish war there were 66, or 0.12 per cent. Therefore the incidence of tetanus in the present war is greater than would have been anticipated from previous experiences.

As to the development of tetanus in those who have received prophylactic injections it is to be noted that this occurred in 0.26 per cent. In many instances this is explained upon the ground that antitoxin injections were given so late that there was no time for them to counteract the effect of the toxin already absorbed. Certain anomalous cases are reported in which the failure of the prophylactic injection is not easily explained. Thus v. Behring records the case of his assistant who was infected in 1895 through the nasal mucous membrane when he was preparing dried tetanus toxin; again in 1898 by inhaling dried powdered tetanus toxin—in this instance there was early tetanus of the diaphragm; again in 1902 by a litre flask of bouillon culture breaking in his right hand and pieces of glass

penetrating deep into his palm. The same day a plentiful amount of antitoxin was injected in the right arm. The fourth day there were suspicions of tetanus, which rapidly progressed in spite of further injections of serum until the nerve trunks in the right axilla were exposed, and as much as possible of Behring's strongest serum was injected into each of them. Tetanus ceased to progress and the case slowly went on to recovery, but the use of the right arm was interfered with for a long time.

As to the duration of the immunity afforded by antitetanic serum, it is evident that the protective effect is distinctly ephemeral. Therefore Levin concludes that it is better to give a series of small doses rather than one large one, and holds that if the dose of 500 units is repeated at the end of a week or of a fortnight after the receipt of the wound we should not use any more serum, and we should probably get a more prolonged immunity than by giving at one dose the 1500 units which some surgeons seem to prefer.

Cases are reported of very late development of tetanus. Thus Don notes the case of a man wounded in the shoulder December 21, 1914, and given a prophylactic injection, who developed tetanus March 2, 1915. Tetanus bacilli were found in the pus. Gardner and Bawtree state that a wounded man may act as a carrier of tetanus bacilli for at least two months after the date of the wound, and without any reason on clinical grounds to suggest that these bacteria are present in the tissues. It is further suggested that the surgeon may be the cause of the development of tetanus by the use of procedures which under ordinary conditions would be quite harmless, but which are not safe owing to certain peculiarities of the tetanus bacillus. It has been experimentally shown that tetanus spores may remain in the tissues of a guinea-pig for about four weeks, and at that time may be activated by injections of quinine or of staphylococci. White mice will harbor tetanus spores in the subcutaneous tissues for at least four months, at the end of which time the spores may be activated by staphylococci but not by quinine, and at the site of inoculation there may be produced as much as 10,000 mouse minimal lethal doses of tetanus toxin.

Fleming examined bacteriologically 127 wounds within seven days of infliction, and found tetanus bacilli to be present in 22 of them.

Bond records cases in which after all incisions and sinuses round a compound fracture involving the elbow-joint or hip or other joint had completely healed, even simple passive movement of the joint under an anesthetic has lighted up a violent reaction, the reappearance of the old sepsis and the formation of local abscesses, although no incision was made, nor any solution of skin surface produced.

Berard and Lumiere speak of cases of tetanus following some operation for trauma affecting a wounded soldier who had a prophylactic dose of serum and had long recovered apparently from his wound. It is regarded as imperative when an operation is proposed in the wounded who may have been infected with the tetanus bacillus, to bear in mind that there may be toxin circulating in the body, and to give them a large prophylactic injection intravenously. Behring notes that the amount of antitoxin present in 1 Cc. of blood a few minutes after an intravenous injection of antitoxin remains constant for nearly sixty minutes.—*Therap. Gazette.*

Monthly Retrospect

OF HOMŒOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY DR. DONALD MACFARLAN
PHILADELPHIA

HONOR FOR HOMŒOPATHY AND DR. LEON BRASOL.—Our readers will join in the heartiest congratulations which we offer to our colleague, Dr. Leon Brasol, of Petrograd, upon the honors which he has received, details of which make very interesting reading along the lines of modern humanitarianism in the present war in Europe.

Dr. George Burford has sent the following communication, presumably as an interesting piece of news, culled from a personal letter.

"The hospital of our two united homœopathic societies has from September 1914, up to November 1915, always had its forty beds occupied, and three hundred sick or wounded soldiers have during that time passed through its wards. Our hospital has earned an excellent reputation with the Red Cross, and with the military authorities, and all the sick and wounded we received were sent us by the Petrograd military distributing hospital (an allopathic institution), which is a proof of the official acknowledgment of the rights of our homœopathic hospital.

Moreover, as superintendent of the homœopathic hospital I have been honoured with the following letter from M. Polovtsoff, of the Russian Red Cross Society:—

DEAR DR. BRASOL,

His Imperial Majesty, in view of the services rendered by you to the Red Cross Society in the present war, has been graciously pleased on the 14th day of November 1915, to make you a Knight of the Order of St. Vladimir of the Fourth Degree. Congratulating you on this Imperial act of grace, I have the honour to inform Your Excellency that the Cross and Patent will be dispatched later.

A year earlier by an Imperial order to the Civil Service dated 6th December, 1914, "The chief physician of the homœopathic hospital, founded by the Petrograd Charitable Society of the adherents of homœopathy in memory of the Emperor Alexander II, Leon Brasol M.D. was promoted 'for distinguished service to the rank of actual State councillor' (corresponding to that of Major-General in the army).

I mention this privately as an example of government acknowledgment of the services of a homœopathic physician and a homœopathic hospital."

It can safely be said that no European homœopathist is better known or more endeared to our British confreres than is Dr. Brasol for he has

always kept in the closest touch with that country, aiding her causes and those of international work over and over again, with a munificent generosity, by time and money spent for them and services whole-heartedly rendered. The ease and freedom with which he speaks and writes the language seems to keep him in touch with them and thus indirectly with the United States.

Like the late lamented von Lippe, Leon Brasol is not one to hide his convictions or belittle his devotion to the illustrious hofrath, and the Czar in honouring the man, has honoured the cause for which he fights, and the hospital whose head is distinguished in Dr. Brasol's person. This war of many nations and peoples has been grievously remarkable for many terrible things, but it has been gloriously remarkable in other respects, along the line more especially of medical and surgical advance. In the field of both latter and former, homœopathy will give its share.

POISONING BY DAFFODIL BULBS.—At a recent meeting of the Pharmaceutical Society in Edinburgh a paper was read by Mr. W. G. McNab in which he described the uncomfortable consequences of the error of a cook who, it would seem, was sadly ignorant of the botany of the kitchen garden. Briefly, the cook, in concocting a *soupe a l'oignon*, had mistaken the bulbs of the daffodill for those of the onion, and neither the appearance of the bulbs nor her tearless eyes while preparing them for the pot told her that anything was wrong. As the narcissus, however, may be used as a remedy, the adage of the ill wind may well apply in this particular case.

The soup was served, and every member of the family, cook as well, experienced *symptoms of nausea followed by violent vomiting and diarrhea*. Thereafter on three consecutive occasions when the family had soup for dinner the same thing occurred. It was not until an investigation revealed the facts that the box in which the domestic onions were stored had long been empty and that the cook had been drawing her supplies from an adjacent box containing garden bulbs that the cause of the trouble was discovered. Judging from like experiences related in the course of the discussion which followed the reading of the paper, similar mistakes are not uncommon. It might therefore be wise if medical practitioners called in to diagnose obscure cases of family sickness would cross-examine the cook.

Daffodil bulbs contain an alkaloid the action of which, according to authorities, varies as to whether the alkaloid is extracted from the flowering bulb or from the bulb after flowering. Thus in the former case the alkaloid *produces dryness of the mouth, checks cutaneous secretion, dilates the pupil of the eye, quickens the pulse, and slows and weakens the heart contractions*. On the other hand, the alkaloid from the bulbs after flowering *produces copious salivation, increases cutaneous secretion, contracts the pupil of the eye, produces slight relaxation of the pulse, and slight faintness and nausea*.—The Lancet.

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SOME PHASES OF ABDOMINAL DIAGNOSIS.

BY

J. D. ELLIOTT, M.D., F.A.C.S.

Assistant Surgeon to Hahnemann Hospital, Philadelphia.

(Read before the Homœopathic Medical Society of the County of Philadelphia.)

DIAGNOSIS is probably the most important feature in abdominal surgery of today, and a brief review of this subject will confirm this belief. It was only about thirty years ago that the present conception of its possibilities began to develop, although laparotomies had been performed for a number of years previously, but the danger in them was so great that they were only undertaken to save life or to help an otherwise hopeless condition. After the introduction of antiseptics and the experience gained by a large amount of experimental work upon animals, the abdomen was opened more freely, first the pelvis, then, after the recognition of appendicitis, the mid-abdomen, and, finally, during the early years of the present century, the upper abdomen. As the danger decreased and the results improved, the number and variety of operations increased greatly and the criterion of a successful surgeon was a low mortality rate and a good wound.

After the entire abdomen had become an operative field and the best methods of treating the various organs and diseases had been well established, the trend of surgical judgment gradually altered and, instead of gauging the results almost entirely by a successful operation, the tendency now is to sum up the final effects of an operation by its ability to improve the symptoms for which it was undertaken. The study of the

ultimate outcome of a considerable number of operations has been disappointing, and this has been due to a number of factors, many of which have been overcome. The fear of a septic peritonitis and its very high death rate often forced an operation when time would have shown it to be needless or have allowed a more accurate diagnosis. The introduction of the Fowler position, gastric lavage, the cutting off of all food by mouth, and proctoclysis not only greatly improved the prognosis in abdominal surgery, but also provided opportunity for careful study of the acute inflammations. The sudden broadening of the scope of surgery and the modern tendency of the medical profession to specialize undoubtedly brought into this field many men who were not sufficiently prepared, for, after all, it is not so difficult to learn to be dextrous with instruments, but a great deal of experience and study is necessary to obtain the judgment to decide when an operation is advisable, what operation should be performed and what treatment the patient requires after that operation. The earlier surgeons were largely recruited from anatomists and anatomical lesions which do not necessarily give rise to disease were given, perhaps, too prominent a position. In the beginning the pathology was that of the deadhouse and the deductions drawn from it were frequently erroneous, as has been proved by studies upon tissues removed during life, the so-called living pathology; and the correlation of clinical findings and those of the laboratory by men grounded in both lines has been of very great advantage. More recently the physiologist has been receiving the attention which is his due, for while physiology as applied to disease is still in its infancy the future holds great promise for this branch. The complexities of and the relationship between abdominal lesions which give rise to very similar symptoms are only beginning to be understood, and the greatest advances which have been made in the recent years, and probably will be made in the immediate future will be along these lines.

In this paper no attempt has been made to give a systematic diagnostic picture of the diseases of any organ, but some points will be recited from personal experience and illustrated with a few cases with the hope to lead to a free discussion of a subject that is familiar to all of us.

While it is not always possible to establish an exact diag-

nosis, every effort must be exerted to make sure that an abdominal lesion which is amenable to surgery is present before operation is advised. The number of diseases to which attention is first drawn by symptoms in the abdomen, when the seat is in another location, is very great. Chronic diseases of the heart, lungs and kidneys often simulate gastric ulcer or carcinoma. Tenderness, rigidity and pain in the right iliac fossa are so frequent in pneumonia that we are all on our guard against making this mistake, and the same is true of typhoid fever; but there are other foci of infection which may give rise to these symptoms, though perhaps not so marked, and the one most frequently discovered has, in our experience, been tonsilitis. Since last autumn several cases of acute or subacute tonsilitis have been sent to Hahnemann Hospital with a fair picture of appendicitis, but the abdominal symptoms rapidly disappeared as the inflammation of the tonsils decreased. While, as stated by Murphy, metastatic appendicitis may occur through the tonsils, we believe that in the great majority of cases it will affect an organ already diseased. During the last three months we have operated upon two patients with gangrenous appendicitis during acute attacks of tonsilitis, but each of them gave a plain history of former attacks of appendicitis and the local symptoms were becoming progressively worse. The danger in operating when there is an acute inflammatory lesion in another part of the body is a real one. I have seen a patient who was just over an attack of tonsilitis develop a fatal streptococcic septicemia after a ventral fixation. Another patient who was operated for chronic appendicitis in one of the clinics last autumn had developed tonsilitis on the preceding evening, but did not mention the fact until her temperature rose to over 102 degrees eighteen hours after a perfectly clean operation. Within three days her wound contained a large amount of pus, from which a pure streptococcus was cultured. Such sequelæ occur too frequently to believe that they are accidental, so a thorough search should be made for any other inflammatory focus before deciding upon other than an imperative operation. Whether the right iliac fossa is more frequently the seat of reflex irritation than other portions of the body is an interesting question, and one that can be decided more easily by the physician than by the surgeon who does not see such cases unless a serious condition is suspected. Perhaps the same symptoms are present

in other parts, but little attention is paid to them because there is not such a dangerous organ as the appendix to fear.

A careful and thorough history is of the greatest value and should be taken as a matter of routine, for a very small fact in it may direct attention from what appears to be an obvious diagnosis to the correct one. Early in 1912 a patient entered Hahnemann Hospital with a temperature of 100.6 degrees and a pulse of 100. For three years his appetite had been poor, he had vomited easily, had been constipated and had had a number of attacks of pain which at first was general over the abdomen but later localized in the right iliac fossa and these attacks were always accompanied by colds. There was marked rigidity and tenderness, which was slightly above and to the outer side of the McBurney point. When questioned as to what was meant by a cold, the patient stated that he had never had coryza or bronchitis, but had been chilly and had had dull, aching pains in the back and limbs. As this history appeared to indicate a mild pyemia, a focus of pus which could hardly have been present in the appendix was suspected. Although the urine was negative Dr. Hunsicker was able to obtain some from the pelvis of the right kidney, which contained pus. Subsequent operation by Dr. Van Lennep demonstrated a badly diseased kidney which required nephrectomy, the acute attacks evidently having been produced by a blockage of the ureter and retention of the infected urine, and the outcome was a complete success. In October of 1914 a patient came to the Hahnemann Hospital, who was suffering from very sharp pain in the right side of the abdomen, marked rigidity of right rectus muscle and exquisite tenderness over the McBurney point. The temperature and pulse were normal, peristalsis was active and there was little distention. During the previous five years she had been constipated and had had a number of similar attacks which were accompanied by nausea but no vomiting. When asked what brought on these pains, she said they appeared irregularly, sometimes after turning over in bed. Further questioning disclosed that they followed any exertion, such as dancing, and that she had had dysuria and had been treated for a disease of the kidney about the time she had first suffered from abdominal pain. Dr. Hunsicker found urine coming from the right ureteral orifice, but an impassable obstruction about two inches above it. When the acute tenderness and rigidity had disappeared, the kidney was

found to be movable, a cagentos injection was successful and pyelography by Dr. Frank showed the pelvis to be considerably dilated. A nephropexy was done and during the next eight months the patient's health was splendid and she gained twenty pounds in weight, but then met with an accident, after which she suffered from pains in both sides of the back and dysuria, but there was no special tenderness or rigidity in the region of the right kidney. She returned to the hospital and both ureters were found to be patent, but the uterus was displaced and the cervix pressed upon the urethra in such a manner as to cause obstruction. Replacement of this organ by Dr. D. B. James has so far given complete relief of all symptoms.

How much care must be taken in a physical examination was impressed upon me by an incident that occurred a number of years ago, when a patient was seen in consultation, who had been advised to have an operation upon the stomach by one surgeon and one for a gynecologic condition by another. After carefully going over the abdomen and pelvis, the only lesion which could be demonstrated was a slight laceration of the cervix, and a satisfactory diagnosis was not made until palpation of the rectum proved the trouble to be coccodynia. If a rectal examination were more frequently employed a light would be shed upon a number of obscure conditions.

I have failed to see any reference in literature to the probability of confusing an acute right-sided epididymitis with appendicitis, but I have always remembered this fact from the teaching in one of Dr. Benson's clinics. This knowledge has stood me in good stead upon several occasions, and I can recall having seen a patient in whom an epididymitis was discovered a few hours after he had had an apparently normal appendix removed.

A hernia may be overlooked if attention is not directed to it and a number of patients who had suffered from this condition and were subject to recurrent attacks of pain, nausea, vomiting and constipation have been relieved of these symptoms by a truss or an operation. The number of cases of strangulated hernia with symptoms which are almost self-evident are so numerous as to require no mention, but occasionally the diagnosis may not be so apparent. A patient was admitted to Hahnemann Hospital in 1908 who had been suffering with abdominal pain for forty-eight hours and whose condition had been diagnosed appendicitis with peritonitis. At

first the pain had been severe, paroxysmal and referred to the region of the gall bladder, but later it had become less acute and centered in the right iliac fossa. There had been nausea, vomiting and constipation, although a fair result had been obtained by an enema. On admission she was collapsed, the abdomen was greatly distended, pain, tenderness and rigidity were present and most marked in the region of the McBurney point. Vaginal examination was negative, except for a bloody discharge. Incision through the right semilunaris allowed the escape of a great quantity of serous fluid, the appendix was practically normal, but a tense band was found to extend from the cecum to the left femoral ring. Palpation disclosed a hernia and the band was recognized to be the ileum which was drawn so tightly into the opening as to cause the symptoms to be referred to its insertion into the cecum. The gut was gangrenous, but a resection was fortunately successful and the patient made a splendid recovery in spite of tuberculosis of the lungs. The fact, however, remains that she was subjected to one operation which could have been avoided and which might have turned the scales against her.

No matter how intelligently, carefully and thoroughly an examination has been carried out, a certain number of mistakes are bound to occur. Even if a lesion has been correctly diagnosed, others, latent or active, may be present and, unless there is contraindication, all diseased conditions should be corrected when the abdomen is open. In order to do so, the incision should be large enough and the patient should be sufficiently relaxed to allow easy and gentle palpation, and the fingers should be so well educated that abnormalities can be recognized by a sense of touch, an education which can only be acquired by frequent examination of normal structures. Therefore in all laparotomies the principal viscera should be palpated, unless this would add to the danger. If the patient's condition is such that further operative procedures cannot be carried out, a positive or negative diagnosis can be ascertained. We have all seen cases in which an appendectomy has been followed by a cholecystotomy within a comparatively short time, or the fixation of a kidney has not given the patient relief while a different operation has done so. It has been my experience to have operated upon several patients for cholelithiasis a few months after gynecologic operations for undoubted pelvic lesions. In all of these cases palpation of the gall

bladder would have disclosed the calculi which could have been removed through a small secondary wound. Aside from the increased difficulty in arriving at a diagnosis the objection of a patient to a second operation must be considered, and, unless the pain is severe, the majority will continue to suffer, but will ease their feelings by well-justified condemnation of our profession.

The conditions which have been referred to are those which are frequent and whose diagnostic features are well known, but there is a class of cases, not so commonly met, whose mortality could be greatly lessened if they were better understood and treatment instituted early enough, *i. e.*, acute intestinal perforations. In these the tenets of sudden, severe pain, subnormal temperature, rapid, weak pulse, marked and increasing tenderness and rigidity are so carefully sought that the patient is often moribund before the surgeon is consulted. With such diseases as typhoid fever the fatalities must always be many, but if careful daily examinations were made and immediate attention was given to symptoms which resemble those of perforation, many more lives could be saved. Although having seen such cases not infrequently, I have only operated upon three of them, the condition of the others precluding any successful treatment. The first was a walking typhoid and the symptoms resembled those of acute appendicitis so closely that the patient was immediately sent to the hospital for operation. A bloody stool suggested the true diagnosis which was confirmed by a pelvis full of pus and a great hyperplasia of Peyer's patches, one of which had an opening about two centimeters in diameter. Fortunately a cure followed suturing of the perforation with drainage of the pelvis. The symptoms in the second case were so similar that I have always felt that the delay of twenty-four hours was inexcusable and largely responsible for the fatal outcome. In the last patient there was no perforation, but the appendix showed beginning gangrene and was surrounded by a purulent exudate. An appendectomy was performed and the patient's condition improved greatly, all of the acute abdominal symptoms disappeared, but death occurred three weeks later from typhoid toxemia.

Next to typhoid fever, the commonest cause of acute perforation is probably duodenal or gastric ulcer, and within two years I have seen several of these cases, the most instructive

having been within four months. This patient gave no history of previous gastric or intestinal disturbance, except an occasional attack of cramps in the lower abdomen. She was suddenly seized with very severe, abdominal pains while apparently in perfect health, and when seen by her physician, in less than two hours, she was cold, her extremities were blue, her abdomen was exquisitely tender and very rigid, she was nauseated and vomiting and an enema was ineffectual. Morphine gave her some relief and she was sent to the Abington Memorial Hospital. When seen about three hours later she was still vomiting, but her abdomen was much softer, the greatest tenderness and rigidity were in the middle quadrant of the right rectus, the pain was greatly decreased, her temperature was 98° , pulse 96, peristalsis was absent and the leukocyte count was 19,800. A diagnosis of perforated duodenal ulcer was made, but operation was advised against on account of the very great improvement in the symptoms. Her stomach was washed out, she was placed in the Fowler position, enteroclysis was started and all diet by mouth stopped. Careful watch showed improvement to be continuous, there was no further vomiting and the next morning the pulse and temperature were each 100 and the only complaints were hunger and a sensation of emptiness. Abdominal symptoms were confined to well-developed distention, some tenderness and rigidity under the right rib border and complete absence of peristalsis. The general appearance was that of reaction from shock, with a well-defined but not an extremely acute lesion in the right hypochondrium. An operation was advised, largely on account of the suddenness and severity of the onset. Incision through the right rectus disclosed free bile in the peritoneal cavity, the gall bladder showed only edema, the stomach was not perforated, but bile and gastric juice could be seen to be coming from the duodenum, although no opening could be found after a very thorough search. The wound was drained at its upper portion, a jejunostomy was made through a second incision and a dressed tube placed in the pelvis through a stab wound. The whole abdomen was filled with bile, for some escaped through both of the upper openings and a great quantity through the suprapubic. Convalescence was uneventful and the patient left the hospital in about five weeks and has remained in good health. The discrepancy between the severity of the symptoms just

prior to the operation and the abdominal condition was so great as to impress upon me how readily such an extremely dangerous and supposedly easily recognized lesion could be palliated for too long a time, even in experienced and competent hands.

As already stated, this paper has been read with the belief that the future of abdominal operations rests largely upon our development as diagnosticians and with the hope that it will introduce a free discussion of this important subject.

THE POSITIVE AND NEGATIVE VALUES OF HOMŒOPATHY.

BY

F. P. MCKINSTRY, M.D., WASHINGTON, N. J.

(Presidential address delivered before the Homœopathic Medical Society of the State of New Jersey, June, 1916.)

WE will reverse the order and consider first the indirect or negative worth of Homœopathy, and will find it has had no small influence in the world of medicine.

To form any adequate conception of the negative worth of Homœopathy we must have some knowledge of conditions at the time Hahnemann announced his hypothesis. I quote first Dr. John Sayre Bristow from an address before the British Medical Association: "He (Hahnemann) saw through the prevalent therapeutic absurdities and impostures of the day; he laughed to scorn the complicated and loathsome nostrums which even at that time disgraced the pharmacopeias, and he exposed with no little skill and success the emptiness and worthlessness of most of the therapeutic systems which then and theretofore prevailed."

Hufeland, in whose journal Hahnemann published his first essay on the new system, expressed himself as follows: "My opinion is that more harm than good is done by physicians, and I am convinced that, had I left my patients to nature, instead of prescribing drugs, more would have been saved."

Sir John Forbes, physician to the late Queen Victoria, is on record at a later date as follows: "In a considerable proportion of diseases it would fare as well, or better, with patients in the actual condition of the medical art as more generally

practiced, if all remedies, at least active remedies, especially drugs, were abandoned."

During the Civil War, May 4, 1863, Surgeon-General Hammond issued the following orders to medical directors: "It seeming impossible in any other manner to properly restrict the use of this powerful agent (calomel), it is directed that it be struck from the supply table, and that no further requisitions for this medicine be approved by the medical directors. Tartar emetic is also struck from the supply table of the army. No doubt can exist that more harm has resulted from the misuse of both these agents in the treatment of disease than benefit from their proper administration."

It is a far call from these massive doses of mercury to calomel *ix trit.*, now so generally used.

Oliver Wendell Holmes, whose well-known reference to drugs, the sea, the human family, the fishes, has become a classic, also very poetically refers to the past of his own school as a "burnt district where here and there a tree may be standing, but the eye ranges over charred and lifeless trunks with their feet in the ashes of their leafy raiment."

It would be folly to make extravagant claims for the influence of Hahnemann and his followers on the evolution of medical science from the crude and barbarous methods of the past, but all candid students of medical history must admit it has been an important factor in the process. Our own McClelland, to whom I am indebted for many items of information in this paper, says: "Shall we ignore the benign influence it (Homœopathy) has had on former destructive methods resulting in the saving of many human lives?"

Sir John Forbes is so lucid on this point that I quote him further: "No careful observer of his actions or candid reader of his writings can hesitate for a moment to admit that Hahnemann was a very extraordinary man, one whose name will descend to posterity as the exclusive excogitator and founder of an original system of medicine; the *remote*, if not the *immediate* cause of more important fundamental changes in the practice of the healing art than have resulted from any promulgated since the days of Galen himself. Hahnemann was undoubtedly a man of genius and a scholar, a man of indefatigable industry and undaunted energy. In the history of medicine his name will appear in the same list with those of the great systematists and theorists, surpassed by few in the

originality and ingenuity of his views, superior to most in having substantiated and carried out his doctrines into actual and most extensive practice."

Is our mission on the negative side ended? I trow not. Even as the Quakers must still bear their silent but impressive testimony against war, we still must use our influence for the simpler and safer methods of treatment. If we accept the germ theory of disease, and its corollary that disease is a battle royal between the invading germs and the defending phagocytes, we can easily realize that the "butting in" with massive doses of drugs of unknown action may spell disaster. I have been impressed with two recent editorials from old school journals. First, from the *Medical Summary*, January, 1915: "The conservative practice of medicine is becoming more and more the fashion now, and the day of large dosage is passing. The smaller dose, oft repeated, is far more agreeable to the sick, and accomplishes more than heroic doses. Furthermore, there is great benefit thus secured by the aid of the 'vis medicatrix nature,' which is a potent factor in disease, especially those of the nervous type. When we older 'medicasters' look back at our early years, we wonder how the sick ever survived the nauseous and prodigious doses they used to have to gulp down."

The second is from a recent number of the *Medical Council*. Dr. Blair, the editor, whose work, by the way, on *Materia Medica* would interest all physicians, says, in referring to his experience in the recent epidemic of grip: "We never use a particle of any of the synthetic remedies in treating these cases, and never anything more depressing than a little aconite during the first day or two. A trifle of codeine or a dose or two of Dover's powder is all the narcotic medication employed. Gelsemium and cimicifuga relax the nerves and relieve the pains and aches. Ammonium carbonate was used to quite an extent, as was digitalis, and strychnine in a few cases. The bowels should be kept open by non-depressing laxatives. Our idea was to put the patient to bed and give *no medicine* unless there was positive indication for it, and then *stop* it as soon as possible. Absolutely no drug-induced depression in any case was permitted, there being quite enough as a factor of the disease itself without adding to it with drugs."

The following extract from Young's "Travels in France" shows well the trend of thought as to the negative treatment

of disease as early as 1790: "The Count de la Rochefoucauld having a feverish complaint when he arrived here, which prevented our proceeding on the journey, it became the second day a confirmed fever; the best physician of the place was called in, whose conduct I liked much, for he had recourse to very little physick, but much attention to keep his apartment cool and airy; and seemed to have great confidence in leaving nature to throw off the malady. Who is it that says there is a great difference between a good physician and a bad one, yet very little between a good one and none at all?" Osler, many years later, is on record as saying: "He is the best physician who knows the worthlessness of most medicines."

So much for the negative side of our subject. Can we lay claim to any positive values in our system of therapeutics? In establishing our claim I propose to use exclusively the testimony of those not of our faith and order, which will necessitate a liberal use of scissors and paste. In the first place, let us establish what we mean by "Homœopathic Practice." The definition accepted by the A. I. H. is as follows: "A Homœopathic physician is one who adds to his knowledge of medicine a special knowledge of homœopathic therapeutics and observes the Law of Similia. All that pertains to the great field of medical learning is his by tradition, by inheritance, by right." Dr. J. I. Dowling, of Albany, President last year of the New York State Homœopathic Medical Society, defines Homœopathy as follows in his annual address: "Homœopathy is nothing but a specialty, and this we should all be ready to acclaim. It is not and never has been a system of medicine. It cannot be, for the reason that any system of medicine suggests something in an entirety; that is, a whole of a complete body. This naturally includes surgery, drugs and all the other branches of medicine. Homœopathy does not include all these things."

Along this line allow one more quotation, from the presidential address of Dr. J. R. Sutherland, of Boston, President of the A. I. H. in 1904: "Every progress made in medicine is *our* progress, since by it we may profit in equal measure with any of our brethren in our work of healing the sick. There have been periods when factions have held that a homœopathist was false to his calling if he employed in healing the sick any other resources than those offered by the drug administered under the law of similars. Those periods have fortunately passed; those factions practically no longer exist. We are essentially

at one with every educated physician, whatever his specialty in medicine. We need not talk of 'amalgamation' with the mass of the medical profession as a future possibility dependent on our yielding our special medical title. We are amalgamated with the true healers of today, and of all time past and to come, when we claim as our own all knowledge that physicians can possess in common, and the right to employ all means that time and science may reveal for lessening the sufferings of humanity. Is there any homœopathist today who claims that he can select a drug, under the law of similars, which will achieve the results of the fresh-air treatment in tuberculosis; of surgery in pathologic conditions requiring the knife; of saline injections in collapse, of diet in diabetes, gout and scurvy; of antitoxin in diphtheria; of the desiccated thyroid in myxedema; of adrenalin in hemorrhage; of psychic therapy in certain forms of neurosis; of hypnotic suggestion in certain hysterias; of the X-ray in epidermoid cancer and lupus; of manipulative treatment in certain muscular affections? I venture to answer, No. In admitting the limitations that we share with every other specialist, we assert the privileges we share with every other physician."

This shows that we hold much in common with our brethren of other schools. In addition to surgery and the measures of physical therapeutics we use drugs for palliative and other physiological purposes as required. But freely admitting all this, there is left unprovided for a large field—yea, the largest field of everyday practice. All the infectious diseases and most functional diseases fall into this class, and here is a weak spot in the treatment of our regular friends, as admitted by their leaders. This is the field we claim for the use of drugs on the principle of "drug affinity," "dual action of drugs," "substitutive method of Trousseau," or "similarity," as Hahnemann designated it. (By the way, why should it be thought so incredible that drugs which have physiological affinity for certain organs and functions *might* be curative when these same organs and functions are affected by disease?) This, too, is the field for vaccine and serum therapy, which methods we have been slow to claim but which their originators and developers have not hesitated to call Homœopathy. So then the only point wherein we differ from other educated physicians is the addition of a therapeutic specialty. As to the value of this specialty we now summon some witnesses.

Dr. Charles Mayo has recently given us a good word. In order to quote him correctly, I wrote to Professor H. L. Northrop, of Philadelphia, for an exact statement of his utterance before the last American Congress of Surgeons at Boston. I quote from his letter: "Dr. Charles H. Mayo, in an address before the Congress of Surgeons in Boston stated the following: Samuel Hahnemann has not received proper credit for the advanced thoughts which he expressed, and time has proved that he anticipated the bacteriology of the future and that in the expression of his views on the subjects of bacteriology and vaccines he was eighty years ahead of his day and generation. Mayo further stated that the application of serums today is essentially homœopathic, and that Hahnemann foresaw and anticipated serum treatment in the views which he promulgated."

Dr. Cabot, of Harvard Medical School, in an address before the Boston Homœopathic Medical Society, said: "It has been just to charge our school in the past with the absence of any principle or law of therapeutics, and to contrast the order and system of homœopathic treatment with the helter-skelter, omnium gatherum of merely empirical methods. But the contrast is no longer just. Homœopathy has a well-defined law which has been established empirically and is constantly and properly being subjected to reverification through careful experiments. We also, at last, after much groping and long years of work, obtained a law of therapeutics, a principle of therapeutic effort, namely, the principle of immunity—natural and of the means by which it may be attained, augmented, protected." Later, in speaking of the use of tuberculin, he says: "The poison of tuberculosis which can produce some of the symptoms of tuberculosis is here applied in small doses for the cure of tuberculosis through the production of immunity or resisting power in the tissues. Surely," he says, "this is a case of *similia similibus curantur*, as homœopathic writers have pointed out. The use of bacterial vaccines in infectious diseases recently produced by A. E. Wright is distinctly homœopathic. But the revival of tuberculin therapy within the last ten years, after its abandonment in 1890, illustrates the victory of another homœopathic doctrine within our school. I mean the doctrine of the occasional utility of very minute doses. What dose does he (Trudeau) use? Not the 10 mg. often employed in the early nineties, not even the 1 mg. or the $\frac{1}{2}$ mg.

recommended later. At present he begins his treatment in non-febrile cases with one ten-thousandth of a mg., and in febrile cases with one one-hundred-thousandth of a mg. What fixes this dose? Precisely the homœopathic principle, viz., to produce a definite good effect without any observable ill effects."

Von Behring, originator of the antitoxin treatment of diphtheria and tetanus, ought to command the attention of the medical world when he speaks. In his work on "Experimental Therapy," published in 1905, speaking of vaccine therapy, he says: "In spite of all scientific speculations and experiments regarding small-pox vaccination, Jenner's discovery remained an erratic block in medicine till the biochemically thinking Pasteur, devoid of all medical classroom knowledge, traced the origin in this therapeutic block to a principle which cannot better be characterized than by Hahnemann's word—homœopathic. Indeed, what else causes the epidemiological immunity in sheep vaccinated against anthrax, than the influence previously exerted by a virus similar in character to that of the fatal anthrax virus? And by what technical term could we more appropriately speak of this influence exerted by a similar virus, than by Hahnemann's word—homœopathy? I am touching here upon a subject anathematized till very recently by medical pedantry; but if I am to present these problems in historical illumination, dogmatic imprecations must not deter me. They must no more deter me now than they did thirteen years ago, when I demonstrated before the Berlin Physiological Society the immunizing action of my tetanus antitoxin in infinitesimal dilution. On this occasion I also spoke of the production of the serum by treating animals with a poison which acted the better the more it was diluted, and a clinician, who is still living, remonstrated with me, saying that such a remark should not be made, since it was grist for the mill of homœopathy. I remember vividly how Dubois-Reymond, who during the progress of the demonstrations and discussions had become drowsy, suddenly sat up all attention when I replied in about these words: 'Gentlemen, if I had set myself the task of rendering an incurable disease curable by artificial means, and should find that only the road of homœopathy led to my goal, I assure you dogmatic considerations would never deter me from taking that road.'" He pleads also that the word "Homœopathy" should be accorded the "citizenship of medicine" and no longer be tabooed.

Dr. Solomon Solis Cohen, of Philadelphia, has proposed a method of administering tuberculin by the mouth after trituration with milk sugar. The *Medical Council* comments on the plan editorially (April, 1915), as follows: "Our own observations upon tuberculin treatment lead us to think most highly of the plan proposed by Dr. Cohen. Argue as we will, tuberculin acts favorably, if at all, along lines paralleling homœopathic principles, as do many other of the bacterins; and dosage must be highly attenuated. Homœopathic 'nosodes' of many pathological conditions have long been used. While the laboratory culture affords products superior to the 'nosodes,' homœopathy must be credited with some sort of bacterial therapy long antedating the use of bacterins; and the homœopathic dilution plan, beginning with high attenuation, is the proper one to follow with the tuberculins and most of the bacterins."

All honor should be accorded the regular school for original research and brilliant results in the line of preventive medicine. The cleaning up of the Panama Canal Zone, the discovery of the mode of transmission of yellow fever and its prevention are honors enough for one generation. In passing let us pay tribute to those medical heroes, Carrol and Lazear, now resting in Arlington Cemetery, truer heroes than ever faced cannon. Dr. Lazear died as the result of allowing an infected mosquito to bite him. Dr. Carrol contracted an attack of yellow fever from a similar cause. Some of us had the pleasure of hearing Dr. Carrol read a paper before the A. I. H. at Atlantic City in 1906, on "Our Present Knowledge of the Etiology of Yellow Fever." He died shortly after as the indirect effect of the infection above referred to. But the most successful *treatment* of yellow fever has been along the lines of "similarity."

I quote from Dr. J. P. Dake's "Therapeutic Methods," who himself had a large and successful experience in its treatment: "It is worthy of note, here," he says, "that the leading homœopathic remedies, those found most efficient in yellow fever, have grown in the confidence of allopathic physicians."

"Dr. Charles Belot, of Havana, a distinguished allopath, who is said to have treated more cases of yellow fever than were ever treated by any other one man, has said: 'One very good auxiliary, which should never be neglected in local congestion, and to diminish the plasticity of the blood, is the tincture of aconite. This remedy, given in doses of six drops in twelve

ounces of water, administered by spoonfuls every hour, has a truly magical power. The pulse becomes softer and its frequency diminishes, whilst the heat of the skin subsides as perspiration is established. It should never be neglected in the first or congestive stage.' And Dr. Belot spoke favorably of another famous homœopathic remedy for yellow fever—arsenic. He said: 'Toward the end of the second period, when vomiting cannot be arrested, when the patient has continued nausea, when the vomit contains bile or mucosities, filled with blackish or sanguinolent streaks, there is no better remedy than arsenic. Prescribed under fitting circumstances, arsenic often brings unhoped-for amelioration.' As though not quite prepared to acknowledge the evident homœopathicity of this potent remedy, Dr. Belot remarked: 'As for arsenic, whilst it may be difficult to appreciate its action in theory, its happy influence in this case is as certain as that of sulphate of quinine in intermittent diseases.' Time will only permit a reference to the "Arsenization Treatment of Yellow Fever," by Dr. Reginald B. Leach, Paris, Texas, issued as a government document by the Committee on Public Health and National Quarantine. It makes interesting reading in this connection.

In cholera, too, our therapeutic principle has stood the test of experience. Dr. Balfour, a distinguished allopathic physician of Edinburgh, on a visit to Vienna in 1836, wrote to his friend Sir John Forbes, saying: "During the first appearance of cholera here, the practice of homœopathy was first introduced; and cholera, when it came again, renewed the favorable impulse previously given; as it was through Dr. Fleishmann's successful treatment of this disease that the restrictive laws were removed, and homœopathists obtained leave to practice and dispense medicines in Austria. No young physician settling in Austria, excluding government officers, can hope to make his bread unless at least prepared to treat homœopathically if requested."

A few years since Dr. Boardman Reed, Professor of Medicine in Temple College, Philadelphia, published a book on "Diseases of the Stomach." I believe him to be a good Methodist, for he quotes John Wesley. Listen to what he says under the caption "Usefulness of Certain Drugs in Minute Doses": "It was John Wesley, I think, who objected to letting the devil have all the good tunes, and whatever wickedness

may still be imputed to the homœopaths, I never could see the wisdom of letting them monopolize any really efficient remedies." He proceeds: "But we of the regular school also habitually administer many remedies in small doses for their primary effect only, avoiding strictly the large dose, which would produce their physiologic or toxic action. Among such remedies may be mentioned arsenic, most of the metallic salts, hydrocyanic acid, alcohol, and ether and chloroform internally. Other drugs we administer in both small and large doses for totally different and opposite effects. These include ipecac and tartar emetic. . . . Calomel is largely used by pediatricists in small doses to control the diarrhea in children." . . . "And he closes his interesting chapter with a parting shot by remarking: 'The bugaboo, homœopathy, ought no longer to stand in the way of progress in this direction.'"

We could go on indefinitely, quoting Ringer, Philips and Sir Almoth Wright, "who has emphatically remarked upon the close relationship of vaccine therapy to homœopathy." I want only to refer to Professor Hugo Shultz, Director of the Pharmacological Institute of the University of Griefswald, Germany, who has been most outspoken in defense of the principle of "similarity." His most recent monograph is upon the treatment of diphtheria with cyanide of mercury. The *New England Medical Gazette* says: "This work of Dr. Shultz's is one of the most able and scientific arguments in favor of the homœopathic practice that has been written of late by any medical man of either school of practice."

In view of this array of evidence, what is our present duty? It is our privilege to feel a genuine satisfaction in the contribution we have made to the sum total of medical knowledge, and to feel an honest pride in our past history and present attainments.

The first obligation I would suggest is loyalty—loyalty to existing organizations, local, state and national, and loyalty to our therapeutic specialty in the sphere of its application.

Secondly, I would suggest liberality. "Let no pent-up Utica confine our powers; the boundless (medical) universe is ours." In the language of our definition, "All that pertains to the great field of medical learning" applies to us. I believe in a freer intercourse with our brethren of other schools, socially, professionally, on health boards, in sociological work, in con-

sultations and in medical societies. We can learn from each other.

Last year one of the largest county societies in the State of Ohio held a symposium on the treatment of pneumonia, at which time papers were read by exponents of the three schools of medicine. There were no broken heads during the discussion, so far as the record shows. We have in this State an Eclectic Society of some fifty members (at least this State is credited with fifty-five members of that school), whose therapeutic methods in many respects run parallel with our own. So far as I know, there has never been any fraternal intercourse between the two societies. If the day should come when all physicians could unite with equal rights and privileges, and the principle for which we stand should be given its rightful place in therapeutics, would it not be a consummation to be devoutly thankful for?

HOMŒOPATHIC DEFICIENCY.

BY

WILLIAM A. SEIBERT, M.D., EASTON, PA.

(Read before the Homœopathic Medical Society of the State of New Jersey,
June, 1916.)

FROWNS and nods may greet a subject like this. The law of "similia" is probably not needing our sympathetic consideration. "All roads seem to be leading to Rome." "E pluribus unum," the motto of our flag, probably also expresses the process of evolution that the present-day medical research is undergoing.

However, any law of nature has been capable of further development, and the law of "similia" is no exception. There are glaring deficiencies hindering this development, and these are the burden of this brief paper.

The first and foremost thought that suggests itself is a desideratum—indeed, a vital need. *It is money.* Without it the homœopathic branch of medicine seems unable to round itself out independently. With it the old school is rapidly, though gradually, nearing the law of homœopathy by its scientific investigations. It would be less gradual, we believe, if it did not entail wholesale embarrassing retraction. However, this age

of scientific research, in which everything must be fully proven, will eventually adopt the law of "similia," if the "signs of the times" are not deceiving. Furthermore, equally probable is it that the old school will adopt our very law itself, under another name, possibly, while we are talking about reproving of drugs and the like.

Now, our deficiency is not in material sufficient for necessary development, nor in men fully qualified and ready to devote their energy and lives to this work, nor in hospitals and colleges; but it does seem to consist in our poverty of means to carry this great work forward. Neither is our deficiency a lack of generous clientele, nor access to wealth ever ready for just distribution; but our amazing deficiency lies in our unorganized, if not disorganized, and at least inactive, methods of approaching and reaching the same. It is true that these sources of generosity have been approached, but in sporadic, and at least not in concerted attack such as an army of fifteen thousand is capable of. Methods would suggest themselves, of course, but it is only our purpose to point to the lamentable deficiency.

It may properly be asked, "Why have the efforts that have been made been so apparently fruitless?" The answer is that even the fountains of generosity seem to be imbued with the same spirit of this scientific age, and expect "Missouri" requirements of proof—undoubted, convincing, scientific and complete. Statistics are not sufficient, and may be misleading. It has been repeatedly demonstrated that simply reproving drugs does not clear the horizon sufficiently to make Mammon deem it worth while. It is even being demonstrated that laboratory efficiency and acumen is not sufficient to excite voluntary disgorging.

Why is it that our attainments are not substantially recognized? There is a reason. Is it not because our claims are not complete? The Homœopathy of many of us does not extend beyond the crudest symptomatology produced by the so-called physiological dose of a drug, and even at that includes only the most common toxic symptoms. Is it not true that the symptoms which are discarded because not common to every prover, or peculiar ones perchance that our illustrious Hahnemann drew particular attention to in the *Organon*, are most necessary to the complete demonstration of Homœopathy? Is it not true that the subjective symptomatology of our

drugs has not engaged our attention sufficiently, and also been placed upon a scientific basis as required in this age of "scientification," as one of our illustrious predecessors delighted in referring to it? What about the bulk of peculiar sensations, the bulk of localities, or elective affinity, if you please, and direction? What about the bulk of modalities, and then also the mental symptoms? Is not probably the most important feature of Homœopathy involved in its subjective symptomatology? Furthermore, subjective symptomatology is probably to Homœopathy what the "character of the Prince of Denmark is to the tragedy of 'Hamlet.'"

Here again it is not our purpose in this paper to outline exactly how this is to be done, rather to point to this deplorable deficiency. This is not a fanciful or impossible proposition by any means, and up to the present time peculiarly the realm of our school, not invaded as yet by the Allopathic wing. Proceed to separate, as Hering aptly said, "the wheat from the chaff." We have enough polychrests to do this with. Do not waste further time in proving new drugs, unless urged upon us by some very important reason. Establish the truth of every symptom, or at least place the responsibility for its existence, as we can from our archives. Correct inaccuracies and ambiguities of expression by the various provers. Explain the existence of each symptom, when possible, physiologically or pathologically. Continue the reproving of these polychrests to verify these symptoms, and call into service the many modern instruments and methods of precision in doing so, thus illustrating and elaborating what we do have, even though little that is new may be added, as was demonstrated by our excellent "Test Drug-Proving of Belladonna" by the O. O. and L. Society. Continue animal experimentation, and when possible verify symptoms in this way. And finally, make a Homœopathic use of our Homœopathic hospitals, as well as private practice, for clinical verification. The latter, be it said to our discredit, has been insufficiently done, and constitutes a most grievous deficiency. The hospitals, as well as the private practitioner, have not been taking cases after Hahnemann's instructions, recording the remedies and noting the results, so that we could now have archives of material that would be as a gold mine to our cause.

Our packet full of *complete* demonstration, in the hands of an army of fifteen thousand regulars and an innumerable host

of civilian volunteers, even if our armamentarium were to comprise only a few polychrests, we believe would be an irresistible display of preparedness that would cause a weakening of the barriers that are up against us for the acquisition of that *sine qua non*—*money*.

Another Homœopathic deficiency is the establishment of an American College of Medicine, in the same manner that the surgeons have segregated themselves into a College of Surgeons. Surgery has been developed by asepsis and antiseptics along such scientific lines that the question of right is not being disputed by the general physician. But why should not the right of medical treatment of disease assert itself similarly? The Allopathic school has been overpowered by skepticism, and is now little more than a body of nihilists. We do not underestimate the value of and advancement made in collateral branches, as physiology, bacteriology, chemistry and immunity that have taken the place of the application of medicine to disease; but let Allopath and Homœopath qualify equally for the honor of membership in the American College of Medicine. Make the qualifying requirements comprehensive as you please. Surgeons may not be respecting the medicinal prevention of operation and cure of disease sufficiently, just as the general practitioner is daily accused, and often justly, of not advising operation in time. Some basic principles of Homœopathy, that were formerly ridiculed, are now accepted by the Allopath. The single remedy is taking the place of polypharmacy; the minute dose, even infinitesimal, is taking the place of heroic dosage; even rare dosage is being advocated. Experimentation upon living tissue for the purpose of determining the properties of drugs is supplanting the former crude and empiric methods, and none less than the Allopathic school itself is commenting favorably upon the wonderful prevision of Hahnemann in this respect. Why should not the medicinal cure of disease, on a *complete* basis, demand most honorable recognition?

"Good wine may need no bush," but, as Shakespeare says, it is true that "to good wine they do use good bushes."

ATYPICAL APPENDICITIS.

BY

B. H. GARRISON, M.D., RED BANK, N. J.

(Read before the Homœopathic Medical Society of the State of New Jersey,
June, 1916.)

THE typical case of appendicitis, with pain and tenderness over the McBurney point, rigidity of the right rectus muscle in that region, slight nausea and vomiting, with a mild rise of temperature and constipation, is very easily diagnosed, and it is not difficult to advise the proper treatment. But in the cases where the pain is not in that region, and there is no tenderness or rigidity, and still you may have on the inside an appendix going on to destruction as fast as possible, they are the cases that tax our utmost skill to diagnose and to treat properly if we are going to save them. When we consider that in the last year-book of surgery, the hospital statistics, taken from the sum total of all the hospitals in the United States that publish reports, the mortality rate was above 10 per cent., it behooves us to stop and study these cases more thoroughly, and get them to the hospital earlier, and give the surgeon a better chance to save them. These patients did not die because of the operation, but in spite of it; not so much from faulty technic as because of the fact that they did not reach the hospital in time for a successful operation. Procrastination is the cause of so many deaths from appendicitis, and the procrastination is often due to our inability to make a proper diagnosis of the condition of the appendix inside of the abdomen before we see it. As you all know, the pain of appendicitis may be anywhere from the ensiform cartilage to the pubes, and not in the lower right quadrant at all until the appendix has ruptured.

To illustrate. Several years ago a chauffeur was brought into the hospital suffering excruciating pain over the region of the stomach. The upper abdomen was tense and drawn in, he was vomiting and constipated, temperature was normal, but the pulse was very rapid. His symptoms simulated those of perforating ulcer of the stomach. I saw him and advised immediate operation. The family physician disagreed with me and said that all he needed was a real good high enema, and he supervised giving him sixteen quarts of solution with a

high rectal tube, with no result. He refused at that time to have him operated. The pulse jumped up ten beats an hour, and four hours later we removed an appendix that had just ruptured.

Another case—Mr. J., aged eighteen. Past history negative, denies ever having any venereal disease. Present history: Patient entered the hospital on Wednesday morning at eight o'clock complaining of inability to urinate. He had been sick in bed since the past Sunday and had complained of severe pain and tenderness over the bladder. He said that for the past three days the urine had been passed with difficulty and had been very cloudy. After voiding the pain and tenderness were relieved to some extent, but not entirely. Each time the bladder became full the pain became worse. The patient had had two previous attacks of pain in the lower abdomen. The first attack occurred about two years ago, which was over the bladder and lasted three or four days, but not severe enough to lay him in bed. The following year he had another but milder attack which lasted only two days.

Physical examination. The patient is well nourished and shows no evidence of chronic or venereal disease. There is marked rigidity all over the abdomen, slight distension, and is very tender all over the abdomen, but particularly so over the bladder, which was markedly distended. Catheterized specimen was negative. Temperature, 102.2; pulse, 100; respiration, 20. Blood count showed 28,000 leucocytes.

It was now very evident that he had a pus appendix. On opening the abdomen we found the appendix down over the bladder, almost sloughed off, and the lower abdomen filled with pus. After six weeks he made a complete recovery. In both of these cases the pain and tenderness were not anywhere near the classic spot.

In appendicitis we must differentiate gall-stone colic, pneumonia and pleurisy, right-sided renal colic, oophoritis and salpingitis, ruptured tubal pregnancy, perforating ulcer of the stomach and duodenum, and perforation from a typhoid ulcer.

In gall-stone colic we have a sharp, colicky pain in the upper right side of the abdomen, which may radiate through to the back, nausea and vomiting of bile with no rise of temperature. If you will have the patient take a long, deep breath, and make a sharp finger-point percussion over the region of

the gall bladder, it will cause excruciating pain and probably clear up the diagnosis.

In pneumonia and pleurisy on the right side we have high fever, difficult respiration, slight cough and expectoration, and on examination the physical signs. But we must not lose sight of the fact that we can have an appendicitis complicating pneumonia. In the past two years I have seen two such cases, in which we removed an appendix about to rupture.

In renal colic on the right side the pain is very similar to appendicitis, but deep fist percussion over the region of the kidney will cause severe pain. A blood count will aid the diagnosis.

In ovarian and tubal disease a vaginal or rectal examination, with the history of the case, may help, but in many of these cases we cannot make a positive diagnosis until the abdomen is opened.

In perforating ulcer of the stomach and duodenum the pain from the acid gastric juice, causing a chemic peritonitis, is so severe that it doubles the patient up like a jack-knife and causes a boardlike rigidity over the epigastric region; this does not relax until the abdomen is opened and the condition is relieved.

In ruptured tubal pregnancy the onset is sudden and the shock is so great from the internal bleeding, along with the menstrual history, that we should not be misled.

In children appendicitis is particularly rapid and fatal, and we must be even more on the alert than with adults.

To illustrate. On December 8th Helen D., aged eight, was taken with a sharp pain in the epigastric region, with nausea, vomiting, diarrhea, no rise of temperature, no tenderness or rigidity anywhere over the abdomen on deep pressure. On December 9th the abdomen was so distended and tender she would not allow an examination. She was admitted to the hospital two hours later with a temperature of 105.2, pulse 144. On opening the abdomen we found a ruptured appendix, a diffuse peritonitis, the intestines were purple, and the abdomen filled with a large quantity of free pus. She died five or six hours later. This was one of the fulminating type.

The next case is one of an entirely different character. In November, Esther W., aged ten, was taken with an obstinate constipation. We simply could not get the bowels to move for a week. All this time she had no pain, tenderness or dis-

tension. The pulse and temperature were normal. She recovered from this attack and seemed as well as usual, but did not gain any flesh. On January 18th she started in the same way, but on the morning of the 19th we discovered a slight tenderness on deep pressure over the McBurney point, no rigidity, no nausea or vomiting. Advised immediate operation, and two hours later she was admitted to the hospital with a temperature of 100 and pulse 92. On opening the abdomen we found numerous adhesions, a retro-cecal appendix filled with a large, hard fecal concretion, and very badly inflamed.

Then again you will find what I might term the sneaky type. To illustrate. Charles P., aged forty-five, was taken with a sharp pain in the epigastric region at 5 A. M. The night before he had eaten a lot of peanuts. He had nausea and vomiting, constipation, temperature normal, pulse 70, no tenderness or rigidity over the abdomen. He did not consider himself sick, and thought his sickness was caused from the nut diet the night before. During the day he vomited several times and the bowels would not move. At 5 P. M. he had a very slight tenderness on deep pressure over the lower right side, no rigidity, temperature 99.5, pulse 80. Advised operation, and three hours later we opened the abdomen and found a retro-cecal appendix, distended almost to bursting with pus. In fact, we had to handle it very carefully to prevent rupture during operation. There were no adhesions. This man gave no history of any previous attacks, still in less than twenty-four hours he would have started a beautiful peritonitis.

Then again we have those cases that give a history of one or more severe attacks where the appendix ruptures into the bowel or vagina, and they make a good recovery. A case to illustrate this type. On October 5th Grace A., aged seventeen, was admitted to the ward with a temperature of 99.4, pulse 100. She was thin and emaciated and looked a very sick girl. One year ago she had an attack of appendicitis, was treated by the expectant method and the appendix ruptured through the vagina, and she made a good recovery. Two weeks before admission she had another attack and appendix again ruptured through the vagina. She did not improve, but grew steadily worse. On opening the abdomen we found dense adhesions and pus pockets involving the appendix and right ovary and tube. We had to remove the whole thing en masse and drain. She finally recovered, but how much suffering she would have

missed if she had been operated during the beginning of the first attack.

Having made a diagnosis of appendicitis, what are we to do? First think of that 10 per cent. mortality rate due to procrastination, then consider that in our best institutions 98 per cent. of all acute cases, including those with abscess and peritonitis, are saved, and scarcely ever an acute case operated during the first twenty-four hours of the attack is lost. Today if we lose an appendix case we are censured almost as much as if we had lost an obstetric case, and you all know that that is not a good advertisement.

The initial symptoms are usually so clearcut that the diagnosis is comparatively easy, but the later symptoms are not to be relied upon. The mode of onset is no clue to its probable course or complications. We can never tell in a given case what the next day may bring. A mild attack which starts out with colicky pains, nausea, vomiting, slight rise of temperature, may develop a leukocytosis and local sensitiveness of the right flank in the first six or eight hours. By the next morning these symptoms may be entirely gone. The doctor then is in a quandary. He is unable to tell from the symptoms whether the patient is going on to an uneventful recovery because the contents of the appendix have emptied into the cecum, or whether he is headed straight for the grave because the infected appendix has undergone complete gangrene. A gangrenous appendix causes no pain, because its nerves are dead. It produces no elevation of temperature, because absorption of the products of infection are impossible through its dead mucosa. When an apparently mild case has reached this stage, all that the doctor can be certain of is that the patient has appendicitis. Then is the time to operate, and you have absolute control of your case. The disappearance of pain is the last call to operation. If the appendix is gangrenous, the next symptoms will be those of a rapidly spreading and probably fatal peritonitis.

The appendix which becomes suddenly gangrenous forms no adhesions, and when it ruptures it empties its contents into a free and unprotected peritoneal cavity. On the other hand, if the appendix is not gangrenous but is apparently going on to recovery, its removal at this time prevents a recurrence of the attack, much subsequent pain, and the ever-present danger of perforation in a recurrent attack. The time to operate a

case of appendicitis is as soon after you make your diagnosis as possible. It makes no difference whether it is night or day, a delay of a few hours may make a decided difference in the prognosis.

TREATMENT AFTER OPERATION.

A great deal depends on the treatment after the operation of these desperate gangrenous cases associated with peritonitis. These cases are very ill and stand long operations poorly. Our rule is a quick operation with gas and oxygen anesthesia. After removing the appendix and mopping out the pus we swab over all the inflamed area with alcohol and iodine equal parts, and then insert drains. We have found that this checks the inflammation, shortens drainage and does not increase adhesions. The patient is put to bed in Fowler's position, and enteroclysis of tap water by the drop method is started immediately and kept up as long as they retain it with comfort. We give nothing by mouth until the second or third day. We use enemas to clear out the bowel as soon as we think necessary. If the stomach is troublesome we use lavage freely. That, in brief, is a rough outline of our treatment, and we have been very well pleased with our results.

THE CONTROL OF VENEREAL DISEASES FROM THE PUBLIC HEALTH STANDPOINT.

BY

FRANK J. OSBORNE, B.S.C.,

Former Health Officer, Orange, N. J., Board of Health; now Executive Secretary of the New York Social Hygiene Association.

(Read before the Homœopathic Medical Society of the State of New Jersey, June, 1916.)

BEFORE entering upon the subject of my paper this afternoon I wish to digress long enough to express my appreciation of the honor bestowed upon me in being invited to address a body of professional men on such an occasion as this. We who have been active in public health work are constantly interviewing and consulting with physicians; but for them to feel that they, in turn, can learn anything of value from a layman, even though he be trained in the sanitary sciences, marks a

rather new epoch in the mighty war on preventible diseases and bids fair to open up unmeasured opportunities for a combined attack, both educational and medical, on many untouched public health problems. And if this closer co-operation is a subject of gratification and an evidence of real progress in the public health campaign in this State, what must the fact of a discussion of the subject of this paper mean when viewed in the light of the past "conspiracy of silence" and taboo? Truly we are beginning to get our bearings in this matter, and have finally approached the subject as a public health problem of the highest order and have begun to initiate the same approved methods of prevention, treatment, education, publicity and co-operation which have been so successful in combating the morbidity and mortality of that other major scourge, tuberculosis.

The time allotted to this paper will not permit of an historical resume of these diseases—syphilis, gonorrhœa and chancroid—whose trail leads back to the time of the discovery of this continent at least; nor is it necessary with this audience to review the prevalence of these infections and the far-reaching results of the two former, both medical and social, upon the individual, his family and associates and even upon posterity itself, in the effects upon the unborn in the one case, and total and irreparable sterility in the other. The purpose of this paper will have been served if, starting with the established fact that these are dangerous, communicable diseases, we hold strictly to our subject and seek means of administrative control as a public protection. As a means to this end I shall briefly call attention to, first, the facilities already available and in use for the consultation, diagnosis and treatment of infected individuals; and second, suggested lines of improvement and development of these facilities as public health measures in the control of venereal diseases.

The first and most obvious duty of a department of health in this movement is to offer to the public free consultation and advice, with an honest diagnosis of the ailment. When it is authoritatively stated¹ that 105 out of 200 cases studied in the genito-urinary clinic at the Boston Dispensary either treated themselves or were treated by quacks, the importance

1. *Social Hygiene*, Vol. 1, No. 3, p. 337: *Evening Clinics for Venereal Disease*, by Michael M. Davis, Jr. Ph.D., Director of the Boston Dispensary.

of some accessible bureau of information on these subjects is plainly evident. More especially is this true when it is known that the great majority of persons applying for this aid are not financially able to pay the high fees charged by specialists for such consultations, as was shown by the fact that only 39 out of these 200 had ever been treated by reputable private physicians.

It is unfortunate that the diagnosis and modern treatment of these diseases should be so complicated and expensive; but since the discovery of the organism of syphilis in 1905 and the Wassermann reaction in 1907, the old method of potassium iodide and mercury as exclusive remedies has given way to the use of salvarsan, which was first prepared as a treatment for this disease in 1910. The complement fixation test for gonorrhœa also requires considerable technical skill, so that the latest and most approved methods of diagnosis of these diseases are not practicable for ordinary office manipulation.

Probably the most noted example of a State board of health carrying on a systematic campaign of education which has tended to acquaint its citizens with the knowledge that such advice and diagnosis are available, is Oregon. In starting any such innovation, a thoroughgoing publicity crusade must be launched, which usually takes the form of printed pamphlets and venereal disease posters, and it is stated by Dr. W. F. Snow,² of the American Social Hygiene Association, that by far the greater number of the 5000 persons who have personally interviewed or corresponded with the Oregon department on this subject in the past four years did so after seeing one of the health board placards. The Massachusetts State Board of Health performs over 1000 Wassermann tests a month, according to the same authority, and New York City examined 62,758 specimens for the diagnosis of syphilis and gonococcus infections during 1915.

Here in New Jersey, which it is safe to say is the second best placarded State in the Union, a very good beginning has been made. In Newark, which took the lead, this kind of information and free diagnosis have been carried on for at least five years, while Montclair, Paterson and the Oranges all provide free consultation and advice and free diagnosis for

2. *Journal of the American Medical Association*, Vol. lxvi, pp. 1003, 1008: *Public Health Measures in Relation to Venereal Diseases*, by William F. Snow, A.M., M.D., General Secretary, American Social Hygiene Association.

indigent patients. In most cases this diagnostic service has been extended to the private physician.

Side by side with the demand for free consultation and diagnosis of these diseases should be taken up the consideration of clinic treatment of ambulatory cases, which are most important as a public health menace.

The idea of clinic and dispensary facilities for consultation and treatment purposes for those unable to pay private fees or only a nominal charge, is not new. Special medical clinics, skin, eye, dental, orthopædic and tuberculosis clinics are well established units in our present-day system of charity. Many clinics in the larger cities have also been established for the treatment of syphilis and gonorrhœa with greater or less success. While nobody would wish to condemn any of this work, nor should the physicians in attendance be subjected to anything except the heartiest appreciation by the unfortunates to whom they have so unselfishly given of their time and services, still it is pertinent to ask at this point whether these institutions are doing themselves justice and whether as public health factors they are measuring up to the standard which the community has a right to expect.

In a recent survey³ of venereal clinics in New York City and its accompanying statistical efficiency test, an effort was made to find out just how well this work was being done, and to see how many clinics of Manhattan were conducting their work in accordance with the requirements set by the Associated Out-Patient Clinics of New York. Of 27 syphilitic clinics investigated, only 7 were approved; and of 26 venereal disease clinics, only 4 were found to have come up to those standards. In other words, of the 53 clinics treating these diseases in Manhattan, 79 per cent. are not at present complying with standards admitted to be the minimum for effective treatment of this class of cases. As suggested above, the fault is not entirely, or principally, to be charged against the clinic chiefs, but is rather due to the lack of equipment and attendants which have not been provided by the hospital or dispensary authorities. However, the staff of the clinic are usually the ones looked to for results, and it would appear to be the duty of

3. Social Hygiene, Vol. 1, No. 3, pp. 344-357: A Survey of Venereal Clinics in New York City, by B. S. Barringer, M.D., and a Statistical Efficiency Test, by Philip S. Platt M.A., Supt., Bureau of Public Health and Hygiene, New York Association for Improving the Condition of the Poor.

the chief, both to the profession and to himself, to demand approved standard equipment and quarters; then it would naturally be up to him to conform to certain standard methods of treatment and general dispensary care. When it is known, for instance, that many of these clinics make no attempt to hold their gonorrhœic patients after the urine is clear, and that in others the beer test alone is used, the necessity for standard methods of treatment and for the discharge of patients is plainly seen.

Another striking evidence of the grave inefficiency of the great majority of these clinics is found in the fact that when a statistical efficiency test was attempted by comparing the number of patients, the number of visits per patient, and the results of treatment in these various clinics, only two kept records in such a way that this information was readily available. Here again the fault lies not so much with the clinic staff as with the administrative authorities; for if this outpatient work is worth doing at all, certainly the results accomplished should be so recorded and filed that they can be readily tabulated and studied.

And that these records should be studied long and seriously, and corrective measures of clinic efficiency instituted, is shown by the fact that in the two clinics studied, one of 259 cases, the other 403, only 9.7 per cent. were discharged as cured in one and 9.4 per cent. in the other. When all those who "ceased treatment improved" are added to those "cured," there were still left 71 per cent. who ceased treatment "unimproved" in one clinic and 76.4 per cent. in the other. Nor is this condition peculiar to those two clinics, for Michael M. Davis⁴ found 11.4 per cent. "cures" out of 499 cases of gonorrhœa at the Boston Dispensary in 1912, and Dr. Henry L. Sanford⁵ found 12 per cent. out of 100 gonorrhœic cases in Cleveland in 1913.

Not an enviable record. Such an indictment is hardly cause for congratulation on the part of the genito-urinary clinic service of this country in general. Certainly this is not the kind of record one would care to produce in his plea for financial support, and we can no longer doubt that the time has come to reform the efficiency of these clinics before the facts become generally known to the public and it refuses longer to

4-5. Social Hygiene, Vol. 1, No. 3, p. 339: Evening Clinics for Venereal Disease, by Michael M. Davis, Ph.D., Director of the Boston Dispensary.

support institutions where both wasted time and money are so plainly evident.

Undoubtedly the nature of these infections has much to do with this factor, for it is difficult to impress upon one whose acute symptoms have disappeared that it is still necessary to remain under treatment. In the study of Manhattan clinics above referred to, 52.8 per cent. made only 5 visits or less at one clinic and 61.8 per cent. at the other, while Davis found 81.2 per cent. and Sanford 56 per cent. who made only up to 5 visits. Dr. James A. Smith,⁶ reporting for the Dispensary of the Medical College of Virginia, shows that 78 per cent. of 356 cases treated at that clinic in 1915 made but 5 visits, while 103 were lost after the first visit.

Since less than 2 per cent. of cases of gonorrhœa were found to be cured with even 5 visits, and about 30 per cent. of those Manhattan cases and nearly 50 per cent. of those studied by Davis made but one visit, the uselessness of this kind of treatment from the public health and social standpoints is obvious. More especially is this true of gonorrhœa, treatment for which is so inexpensive and whose later manifestations are so dangerous to both mother and child. In syphilis, the later manifestations, while often fatal to the infected individual, are comparatively unimportant as a public health menace.

When we begin to study the facilities for hospitalization of cases which would benefit by that kind of care, we are confronted with many of the same loose methods and lack of the public health viewpoint that characterize the majority of venereal clinics. There can be no question but that many cases of syphilis, if they could have hospital care and attention for two or three weeks, could be returned to society as comparatively safe members and that the out-patient departments could then take up these cases and effect a permanent cure with practically no danger to the community. If such facilities were established for women of recent gonorrhœal infection, many of the tragic unsexing operations now necessary could be avoided.

The only survey of the hospital situation found was an investigation, still incomplete, which is being conducted in New York City.⁷ Of 30 hospitals being studied, only 10 receive

6. The Virginia Medical Semi-Monthly, Vol. 21, No. 3, p. 55: The Free Dispensary as a Municipal Health Agency, by James A. Smith, M.D.

7. A joint investigation by the Bureau of Public Health and Hygiene of the Association for Improving the Condition of the Poor, and the Committee on Public Health of the New York Academy of Medicine.

recognized cases of syphilis in the infective stage, though 27 will treat them if the disease is discovered after the case has been admitted. Seventeen provide the services of a syphilographer. Only 9 of these hospitals receive adult cases of gonorrhœa, and two of these specify that only surgical cases are accepted. Three receive and treat cases of active gonorrhœa in female children. Thirteen will not take in medical cases with known complications of syphilis or gonorrhœa, though it was stated by 15 of these hospitals that 2607 cases of syphilis were treated during the past year.

If the facilities in hospitals for care of these patients is inadequate, the standard requirements for discharge of those cases which are treated leave much to be wished for. Only 5 require (a) healed lesion, (b) entire disappearance of symptoms and (c) one negative Wassermann for discharge of syphilitics. One requires for discharge of gonorrhœics (a) negative complement fixation and (b) negative prostatic massage for men or negative cervical smear for women, while 15 require neither of these. Ten refer discharged patients to the social service department for follow-up observation and control.

There is one other agency at present being developed in this country as an outgrowth of the regular day venereal disease and syphilis clinics—namely, evening pay clinics. This move is a perfectly natural and logical development for several reasons. In the first place, it provides for that great and growing class of American citizens who are not proper subjects of charity, which class is cared for by the free clinic; nor are they able to undergo the additional and protracted financial stress incident to the complete cure of a venereal disease, with the numerous expensive blood tests and drug treatment which are required. Davis's figures quoted above, in which he showed that only 39 out of 200 patients had previously had private physicians, were taken from such a clinic, and the chief reason given for abandoning the private treatment was "lack of money." This is easy to believe when we are told⁸ that a living wage for a family of five is \$900 a year, and that the average family of this great middle class spends but \$18 a year for medical services, the major part of which goes for medicines. Eighteen dollars would not carry a case of syphilis very far with the specialist's fees, which means

8. The Annual Report of the Boston Dispensary for 1915, p. 17.

that some provision must be made to meet this problem or the quack and self-medication will continue to flourish. Another advantage of these pay clinics is that by fixing the fee high enough to make the clinic self-supporting, the physicians can be paid, which will make it possible to adjust the clinic hours to the time best suited to the patient. Most of these patients, both male and female, work, so that late afternoon or evening hours are necessary in order not to interfere with their earnings. By thus paying the clinic staff enough to make them feel that they are being justly recompensed, the last lingering opposition (if there is any) of the private practitioner should disappear, since this is a means of creating salaried posts for those in a position to secure them.

In the pay clinic started in Boston under Michael M. Davis⁹ on March 22, 1914, a fee of 50 cents is charged, while at the Brooklyn Hospital Dispensary¹⁰ a charge of \$1 is made. In the first of these clinics the chiefs and first assistants are paid salaries, while in the second, one-third of the income goes to the institution and one-third to each of the two clinic physicians. There can be no question about the increased efficiency in the staff of these pay clinics, for added incentive is given aside from the usual one of promotion. An inspiring example of this is seen in the Brooklyn Dispensary, where every man is usually on time and at his appointed task when the clinic opens. This is also true of the day clinic at this dispensary, for the enthusiasm of the second chief, Dr. A. N. Thomson, who is directly under Dr. N. P. Rathbun at this clinic, has spread to every man on the staff, so that they are now doing by far the best work in this line of any institution in Greater New York.

So, in outlining methods of improvement and development of the already existing facilities for the control of these diseases, I should place first the recommendation made so often in the last report of the British Royal Commission on Venereal Diseases¹¹—namely, an increase of clinics for diagnosis

9. *Social Hygiene*, Vol. I, No. 3, p. 333: *Evening Clinics for Venereal Disease*, by Michael M. Davis, Ph.D., Director of the Boston Dispensary.

10. *The Modern Hospital*, Vol. vi., No. 5, p. 365. *Pay Clinics in Brooklyn Hospital*, by Charles F. Neergaard, Chairman Dispensary Committee, Brooklyn Hospital. This paper was read by Mr. Neergaard before the February meeting of the Society of Sanitary and Moral Prophylaxis of New York.

11. *Royal Commission on Venereal Diseases, Final Report of the Commissioners*, 1916.

and treatment of these diseases so adjusted as to fees and time as to meet the requirements of our vast body of self-supporting wage earners. This can probably best be done by some modification of evening pay clinics.

Another development of the greatest importance, especially as a means of increasing the efficiency of all clinics, whether day or evening, free or pay, and of hospitals as well, is the working out of a thoroughgoing follow-up system, with a social service department as a closely correlated adjunct. Gonorrhœa and syphilis have rightly been called medical-social diseases, and as such should be treated socially as well as medically. This can only be done by means of a trained social worker in conference with the clinic or hospital head, who shall follow the patient out into the community and study his case as a citizen. Proper instruction could thus be given the patient in addition to that supplied during treatment, and other members of the family could be prevailed upon to have diagnoses made. Co-operation with various allied social agencies would also be within the province of such a social service arm; and by investigating the financial status of the patient any possible abuse of the dispensary or hospital service could be obviated. By instituting such a system of social service during 1915, the syphilis clinic at the Boston Dispensary has kept 90 per cent. of its patients under treatment, according to Director Davis;¹² and by simply mailing notification cards to delinquent patients the Brooklyn Dispensary has held 63 per cent. of its cases from August 1, 1915, to May 31, 1916.

Another experiment should be extended as a means of rendering syphilitics innocuous at the earliest possible moment. I refer to the administration of free salvarsan to indigent patients. In no clinic, so far as is known, except that at the Newark City Hospital and the Orange Memorial Hospital, is this done. The practice in the Oranges is to send out the social visitor of the hospital to investigate the financial condition of each patient who claims not to be able to pay for salvarsan treatment. If it is found that he can pay all or a part, this is insisted upon before any further treatment is given; if not, the cost of this drug is charged to the fund of the Joint Genito-

12. *Journal of the American Public Health Association*, Vol. vi., No. 4, p. 351: What the Campaign against Venereal Diseases Demands of Hospitals and Dispensaries, by Michael M. Davis, Ph.D., Director of the Boston Dispensary.

Urinary Clinic Committee, which is made up of representatives of the boards of health of the five Oranges. However, being interested in public rather than individual health, and preventive rather than curative endeavor, this treatment is continued at public expense only to that point where the attending physician is willing to certify that the patient has become innocuous and a safe member of the community. If further salvarsan is given after this point, the patient must arrange for its payment, otherwise treatment with potassium iodide and mercury is continued alone. This, we feel, is a perfectly tenable position to take with these cases and is a practice which might well be extended as a purely public health measure.

In studies made by Frankel¹³ on 100 indigent cases applying for relief it was found that 62 per cent. of them gave illness as the cause of their present financial condition. This is cited as showing that, while pay clinics have a very important place in the future campaign against these diseases, we cannot deny the fact that gross illness in the community is a most potent factor in decimating the already meager funds of many of our citizens, and for that reason free clinics for these, as well as many other diseases, must constantly be increased both in size and in number. It should be the duty of every physician connected with these clinics, however, to advance their efficiency in every way possible, and uniform standards for the discharge of both clinic and hospital patients would go far toward bringing these venereal diseases under control.

The main points which I wish to leave with you then, as a means of administrative control of syphilis and gonorrhœa are:

1. The establishment of evening pay clinics for the self-supporting wage-earner class.
2. An increase of free clinics and hospitals for those below or just at the self-supporting line.
3. Increasing the effectiveness of all such clinics and hospitals by holding patients until cured.
4. Correlating the medical service with a social service follow-up visitor as the most effective method of increasing clinic and hospital efficiency.

¹³. The Virginia Medical Semi-Monthly, Vol. 21, No. 3, p. 55: The Free Dispensary as a Municipal Health Agency, by James H. Smith, M.D.

5. The supplying of salvarsan treatment free to those unable to pay.

6. Extension of free diagnostic and consultation facilities, supplemented with extensive educational and publicity campaigns.

THE SIGNIFICANCE OF MENTAL SYMPTOMS.

BY

WALLACE MCGEORGE, M.D., CAMDEN, N. J.

(Read before the New Jersey State Homeopathic Medical Society, at Asbury Park, N. J., June 2, 1916.)

THE significance of this paper may appear inopportune, because many doctors attach no importance to mental symptoms, and others, in seeking after a diagnosis, overlook the patient's mentality. A prominent doctor once said to me: "When I make my diagnosis, the selection of the remedy is easy. I prescribe for the disease, and don't bother much about symptoms."

The true physician treats the patient, not merely a disease; he prescribes for the totality of the symptoms. Many curative prescriptions are made before the diagnosis. Even the best of doctors err in diagnosis, and some of our brightest and brainiest men change their diagnoses later on.

The object of this paper is not to decry diagnosis, but to encourage our members to observe the mental symptoms of their patients, so that they may be enabled more surely to correctly diagnose and cure their cases.

What is a mental symptom?

It is a functional or vital phenomenon of disease appertaining to the mind, including intellect, feeling and will, or the entire "rational nature." It is most important to be able to recognize the connection between mental disturbances and physical conditions. Let me illustrate by citing a case.

A young woman in childbirth, nearing the end of the first stage of labor, gets discouraged and disheartened. "I shall die. I know I shall die. I shall die today," she tearfully tells her physician. If he is sensible, he will gently tell her she won't die, give her a dose of aconite (12th, 30th or 200th) and by his confidence impress his mentality on her. In a few min-

utes aconite will get in its work, the patient does her part, and in a little while the agony is over. This doctor knew his remedy and, correctly diagnosing the case, the timid, suffering woman's mental and physical condition were soon relieved.

Now, other remedies have "fear of death" besides aconite, but no remedy has it in so great a degree. In obstetrical cases aconite quiets the fear, lessens the palpitation of the heart, increases the vaginal secretions and hastens or accelerates the delivery. In a practice somewhat longer than the average, aconite has never failed me in such a case.

Take a pathological condition where this fear of death is present. It may be a man, a woman or a child, suddenly stricken with essential paroxysmal tachycardia. "Doctor, I shall die; I shall never live to get home; I am dying now," has been said to me more than once. One strong man once came to my office and quickly said: "Doctor, I'm a goner. Help me." In all of these cases aconite quieted the overworked heart, removed the fear of death and led to a rapid recovery. The strong man, when he had revived, thanked me and told me he had never expected to see his loved ones again; but he did not, as most aconite patients do, predict the time of his death.

Fear of death, with anguish, after a fit of anger, calls for platina. When there is extreme anguish and the patient thinks death is near, raphanus sativus, the common radish, will relieve.

Kali carb. and nitric acid have fear of being alone on account of approaching death. In pregnancy the kali patient, while walking, fears she will lie down and die in the street. When the patient fancies he will die soon, yet is not physically ill, nitric acid should be thought of.

One night, over thirty years ago, I was sent for to see a young man who was timid and afraid; who did not want to be left alone, because he felt he would die during the night. Beyond his mental condition there was only some physical weakness observed. I did not laugh at his fears, but gave him some nitric acid, 30, stayed with him until watchers were procured, and then went home. That man is still living.

Arsenicum and gelsemium have dread and fear of approaching death.

Actæa racemosa (*cimicifuga*) has fear of approaching death

but does not specify any time. The patient thinks she is going to die, or fears that someone will kill her.

In acute indigestion with faintness or sinking at stomach, as if he would die, with small, weak pulse, digitalis (2d or 3d) will give prompt relief. It is a nervous, deathly sinking feeling, and the patient does not get better from eating, but they do get relief from vomiting. This remedy is equally good, in these conditions, in youth or old age.

Injury, followed by one fixed and anxious idea of impending death, calls for aconite.

Anxiety, as from conscious danger of death, points to capsicum, but this remedy is oftener called for in homesickness than in fear. When the fear is of near approach of death, which makes him very sad, think of platina.

When there is fear of death, with difficult respiration, arsenicum and lobelia should be considered. The arsenicum patient has a dread of death when alone or on going to bed. She must sit up to get her breath. The attack of dyspnea drives her out of bed. She dreads death, but doesn't tell you when she is going to die. The pulse is irregular and at times intermits. Lobelia has more apprehension than fear, and the pulse is slower than usual, and small.

An observant doctor will see other forms of fear, as, for instance, under stramonium the patient despairs of eternal salvation, while there is anxiety about the salvation of one's own soul, with indifference to the salvation of others, in the sulphur case.

For bad effects of fright we think of opium and aconite. If of recent origin, give opium. If some time has elapsed since the fright, aconite is the better choice, as in the following case:

A few weeks ago I was called to see an old lady who was quite sick, and much of her illness was due to fright. In cleaning up a closet that she kept her clothes in, she found a mouse hole. To remedy this she had taken a hammer, a piece of tin and some nails, and went to her room with them. In some manner, after she got in the closet, the door swung to and she was shut up and locked in, the spring lock only opening from the outside. She called and knocked and hammered, but her daughter was in the front of the house and did not hear her. The old lady knocked and hammered and called, but no one came to her aid. She was afraid she would be

suffocated, gave up all hope of rescue, and became unconscious. Fortunately her son-in-law came home earlier than usual, and, not seeing her, asked where she was. Going to her room and not finding her, he opened the closet door, saw her on the floor, lifted her out and put her to bed. He said something told him to go home early and not wait till his usual time. She revived, but did not get over her fright. Aconite, 30, relieved her in a few hours, and in two or three days she was herself again. When I dismissed her she told me she thanked God for that medicine which had taken this terrible fear away.

When a child has been frightened and suffocative attacks set in, with bluish, bloated face, *sambucus nigra* is useful.

Fear and anger suggest aconite. Fear and sorrow point to *ignatia*. Fear and anxiety call for *lycopodium*. Hering says *lycopodium* is good in ailments from fear, fright, anger, mortification or vexation.

In many mental conditions *lachesis* does grand work. Nearly all the emotions run through it. Many think of *lachesis* only in loquacity, insomnia, jealousy and amorousness; but these are only a few of the mental conditions calling for it. In chronic complaints after long-lasting grief or sorrow; in ailments from fright, disappointed love or jealousy; in peevish, irritable, sensitive dispositions; in satiety of life with longing for death; in hopelessness—*lachesis* will serve you well. Many of these complaints are worse on awaking—one of the modalities of this drug.

Take another mental symptom we frequently meet in practice—*chagrin*. *Antimonium crudum*, *ignatia*, phosphoric acid and *staphysagria* are most frequently indicated.

Under *antimonium crudum* the *chagrin* is worse from disappointed love. The *ignatia* patient grieves from *chagrin* caused by unhappy or unrequited love. Phosphoric acid is oftener indicated for girls and young women who are *chagrined* because of disappointed love, or from care, grief, sorrow or homesickness. Many of these cases have profuse flow of urine at night, with excess of earthy phosphates.

For real old-fashioned *chagrin* or mortification, *staphysagria* beats them all. When you learn to give *staphysagria* for this condition you will make grateful patients and lasting friends. For bad effects from naughtiness of others, Hering fifty years ago, when talking to his students, said, give *staphysagria*. I never forgot that aphorism of his, and *staphysagria* has never

failed me, nor will it ever fail you in such affections. In heart troubles, when women have their feelings hurt by unkind words or actions of their husbands or children, staphysagria will remove the bad effects following their naughty words or deeds.

Thirty-three years ago I had a hurried call out in the country to see a patient with heart disease. In a few sentences the woman told me she had to punish one of her children for disobedience. The boy was obdurate and would not yield. The strain on that mother's heart was great, but she felt she must control him for his own good. Finally the mother prevailed, the boy yielded, but then the mother's heart gave out and they thought she was dying. When these facts were given, the remedy was plainly indicated. She received staphysagria, 200; in fifteen minutes she was relieved, and cured in a few hours. The boy never gave his mother cause for another attack, and she lived to see him grow up to be useful in the community in which they lived. The mother's firmness cured her boy, and staphysagria cured the mother.

Kent, that keen observer, in his lectures gives a vivid description of the mental symptoms of staphysagria. I quote the following case: "A gentleman comes in contact with one beneath his station, and an altercation takes place; an argument which ends in insult, and the gentleman turns his back on the other. He goes home and suffers; he does not speak of it, but controls it and then suffers from it. He has sleepless nights and many days of fatigue, brain fog; for days and weeks he cannot add nor subtract, he makes mistakes in writing or speaking, has irritability of the bladder, colic, etc." Had he gone to a good homœopathic physician and received staphysagria he would have been cured in a few hours.

In office practice we see patients who are irritable, sometimes even maliciously so. Business cares, incessant competition and the high cost of living keep these men constantly on the rack, and you are apt to be the lucky fellow to draw their fire and observe their peevishness and petulance. There are many remedies that have irritability in their pathogenesis, but in my experience *nux vomica* leads them all.

When your patient is irritable and wishes to be alone; when dull, low-spirited and inclined to be angry; when he is morose, sullen and easily offended; when he is fretful, ill-humored and easily vexed; when he talks hastily, is irritable and depressed

in spirits; when he is irritable and easily fretted; when he is impatient; when he is quarrelsome if disturbed; or passionate and contradictory; or peevish, fretful and passionate; or peevish and low-spirited; when he is peevish, irritable, quick-tempered, fretful, ill-humored and quarrelsome; when he is violent, excited, irritable and easily offended—*nux* is your remedy.

If the trouble is mainly mental, give him *nux* high; but if, with any of these mental symptoms, he has disordered stomach or indigestion, *nux*, 3x, will relieve him more quickly.

In little children who are so irritable that they will cry if you touch or even look at them, a condition often seen in bronchitis or broncho-pneumonia, antimonium crudum will relieve in a few hours, and in a day or two they will actually let you touch them without getting angry.

Let me cite one more mental condition. I refer to *shock*. While it is mental, it profoundly affects the entire body. In ailments or injuries following shock or fright, think of *hypericum*. It also removes the bad effects of shock. If this remedy was used more often, many cases of spinal injury would be cured, instead of suffering for years or until death relieves their sufferings.

If the mental shock arises from death of a near relative, followed by languor, lassitude or exhaustion, think of *picric acid*.

In conclusion, let me quote the remarkable case of an alarming mental condition as given by Hering in his "Guiding Symptoms." "After a jealous quarrel, she put both hands to her chest and cried out, 'Oh, my heart!' then fell down and was in an asphyctic state for nearly twenty-four hours; no pulse could be felt; breathing was hardly perceptible; she lay on her back." The remedy that cured her was *lachesis*.

SOAP.—By G. K. Dickinson: Soap is now recognized to be antiseptic, and to be efficacious must produce a lather; bacteria rubbed into soap or dropped on its surface are incapable of multiplication. The strongest antiseptic action was shown by soaps containing biniodide of mercury. The typhoid bacillus is very sensitive to soap, being killed by a five per cent. solution in a short time, more than half the total number dying in one minute, while staphylococci are only slightly more resistant. Therefore the thorough use of a pure potash soap is not only a mechanical method of cleansing, but is an active factor in cutting down germ life.—*Medical Record*.

MOUTH BREATHING.

BY

W. D. ROWLAND, M.D., ASBURY PARK, N. J.

(Read before the Homœopathic Medical Society of the State of New Jersey, June, 1916.)

TEXT-BOOKS say very little concerning this subject. Its importance in prophylaxis, in physiological efficiency, and in facial cosmetics warrants its careful consideration. If a child grows into adult life handicapped, it is someone's fault, most frequently not that of the patient. Poverty or refused treatment should be the only real excuse for non-care at the present day.

Myers classifies mouth breathers into two main groups: 1. Those having nasal obstruction. 2. Those having malocclusion of the teeth and in which there are normal nasal tracts.

Group 1 is subdivided into: A. Those having nasal obstruction with normal occlusion and normal dental arches. B. Those in which nasal obstruction results from abnormal dental arches and abnormal occlusion.

Group 2 is subdivided into: A. Those having dental deformities remaining after nasal obstruction is cared for—*i. e.*, after adenoid hypertrophies, etc., are removed. B. Those in which nasal obstruction never existed, but dental deformity due to malnutrition, infantile congestive obstructions and faulty ossification of facial structures.

Bogue, of New York, remarks that too often the importance of the muscular action of the tongue in the development of the superior maxilla is overlooked. The tongue is one of the most powerful muscles in the human body, a fact experienced on attempts at pharyngeal inspection and which all have noted. Its normal position when the mouth is closed and nasal respiration is taking place is pressed against the roof of the mouth and laterally against the alveolar processes, and with lips closed a vacuum is produced by the tongue in this relation, thus causing negative air pressure within the buccal cavity and very positive air pressure within the nasal cavities. In young subjects, and the time of life when these faults most likely occur, these processes are pliable and subject to a great diversity of shapes due to the slightest external influence. Open mouth breathing releases this negative arch and positive lateral (alveolar) pressure, and transposes it to the floor of the mouth.

The maxillary arch is now narrowed by positive buccal air pressure and reduced positive air pressure within the nose; and further progress elongates the narrowing arch, forcing the upper incisors forward with protrusion between the lips. Early and continued hypertrophy of the faucial tonsils frequently results in the protrusion of the mandible to give more space in the oro-pharynx. This gives the receding upper lip with lower incisors anterior to the uppers, a reversal of normal. The lisping voice is frequently found in the latter-mentioned class.

Noyes, D.D.S., of the University of Illinois, says: "Each tooth is made up of a number of inclined planes which slide upon inclined planes of the teeth in the opposing jaw. In every functional activity—breathing, talking, swallowing, masticating food, and especially in all physical exertion which taxes the muscular strength, these inclined planes are brought against each other with force, and the force brings about the development of the bones. Anything which disturbs the relation of the inclined planes of this mechanism, the wrong position of any single tooth, or the absence of any tooth from the arch, or anything which disturbs the normal functional activity or greatly reduces its vigor, will modify the development of the bones of the face and destroy the balance and harmony of the features. The first permanent molars erupt while all the temporary teeth are still in place, usually between the ages of five and six. They come into place behind the last baby tooth, and as they first come into contact the points of their cusps are very nearly end to end. Apparently at this time a very slight change may determine whether their inclined planes slide into normal or abnormal relations, and if locked abnormally the whole mechanism of development becomes perverted."

Nasal respiration cannot be maintained when closure of the mouth is secured at the expense of an effort, this constant effort being necessary when malocclusion of the teeth is present, or nasal respiration is obstructed. From the age of six to fourteen, while the bones of the face are developing, the proper occlusion of the teeth is the determining factor.

Normal nasal function provides for filtration, warming to body temperature, and regulating the humidity of inspired air so that proper gas exchange is possible in the lungs. Respiring fifteen to twenty times per minute, for 1440 minutes each day, and with sufficient force and pressure to equalize 15 pounds per square inch over the chest surface at this alti-

tude means tremendous wear and tear upon the mucous areas of the respiratory tract. The nose can do this successfully under ordinary conditions, but the mouth can neither properly filter, warm, or moisten the air, the result being chronic irritation to all structures in this path, underoxygenation, and faulty metabolism.

Quoting Pyle: "Mouth breathing allows the entrance of dust and bacteria directly into the lower air passages, whereas in breathing through the nose most of these particles are lodged upon the nasal mucous membrane and returned to the outside. In violent exertion forced inspiration makes this area highly susceptible to direct infection upon the tonsil and larynx and even lungs. It is well known to long-distance runners that the breath gives out very soon if mouth breathing is used, while breathing through the nose is soon followed by what is called 'second wind,' during which respiration becomes easy again. Second wind is partly due to a dilatation of the blood vessels, making the blood pressure lower and the heart's action easier. It is also in part due to the fact that in breathing through the comparatively narrow nasal orifice the air enters the thorax with more difficulty than through the mouth; this increases the negative pressure within the chest, causes the respirations to be long and deep, and so gives the thorax an opportunity to pump blood as well as air into its cavity, thus aiding the heart in its action. So deep breathing through the nose during exertion tends to lessen the heart strain of cycling, running, boxing or other sports and exercises. The foregoing statements sufficiently prove how indispensable to healthy respiratory organs is an unobstructed nose."

SUMMARY OF CAUSES OF OBSTRUCTED NASAL RESPIRATION.

1. Deviated septi manifesting obstructions most frequently in adulthood, and due to faulty development or traumatism.
2. Hypertrophied turbinals showing in adulthood as a result of deflected air currents where deviated septi exists.
3. Polypoid growths, which means an existing chronic involvement of nasal accessory sinuses.
4. Atrophic rhinitis at times, when crusting is excessive, and which is due to a pre-existing suppurative sinusitis, usually ethmoidal.
5. Tumors and extensive ulcerations.
6. Hypertrophied adenoid tissue. These may be induced to recur after surgical removal if there is persistent mouth

breathing, which causes passive congestion in the epipharynx by hypotonic air pressure.

CAUSES OF MOUTH BREATHING IN THE MOUTH.

1. Hypertrophied tonsils, forcing open the mouth in order to give more space in the pharynx.
2. Malocclusion of the teeth from various causes breaking the seal of the lips.

SUMMARY OF EFFECTS.

1. In the nose, improper development of the sinuses or faulty drainage of sinuses, due to hypotonic air pressure and underventilation; tendency to septal deflections by positive air pressure within the mouth and hypotonic air pressure within the nose, and turbinal hypertrophies secondary to septal faults.
2. In the pharynx, middle-ear disturbances by aspiration of tympanic air, predisposing to suppuration of the tympanum and mastoid.
3. Tonsillitis, pharyngitis, laryngitis, bronchitis and pulmonitis from direct exposure.
4. Underoxygenation and faulty mastication, with resultant malnutrition showing itself in mental and physical deficiency.
5. Speech defects.
6. Deformed facial contour.

These results contribute to uneconomical function; and in human endeavor, all things being equal, abnormal nasal respiration renders it impossible to compete on an equal basis with the normal individual. It is a real handicap.

Treatment for this pathological function consists in the correction of the nasal fault by the rhinologist, and readjustment of the faulty arch and occlusion by the orthodontist. Excusing the condition as one of "habit," and attempting its correction by precept or the application of a harness to aid mouth closure, is in many cases inefficient, and our whole duty thereby not completed.

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BIRTH CONTROL.

BY

ELIZABETH HAMILTON-MUNCIE, M.D., PH.M., BROOKLYN, N. Y.

National Lecturer World's Purity Federation; Lecturer on Sex Hygiene New York State Department of Health, 1911 to 1913.

"BIRTH CONTROL" is one of the live social questions of the day. It has come to stay until it is answered. In the discussion of this question it must always be conceded that all legitimate birth control must be preceded by self-control, a commodity, so far as the sex nature is concerned, "as rare as hens' teeth" in the defective classes and altogether too scarce with the so-called normal classes. We must therefore deal with perverted humanity as we find it, while seeking to raise the standards of coming generations.

As every physician knows, it is against the law of the land to disseminate knowledge that may lead to the control of human conception, commonly known as "Birth Control." And yet statistics show that the deficient classes are increasing out of all proportion to the normal classes. In our almshouses, out of every 105 women confined about 100 are feeble-minded. Sterilization of the unfit would in this class, as well as in the criminal classes, be the only birth control regulation that could regulate. This operation by vasectomy not only prevents the further propagation of their kind, but it also benefits the mentality of the individual, as has been amply demonstrated.

One year ago a boy of mentally deficient parents was placed under my care. He had been booked for one of the State farms for life. He received vasectomy, after which his mental condition improved so rapidly that he was able to secure a position which he has held acceptably ever since. If one such can be thus saved from a life of State parasitism to a life of self-support, the operation of vasectomy should receive most careful consideration in every State by every social worker and by every taxpayer.

The question then is both social and economic. The proportion of children born to degenerate parents to those born to normal parents is 7.3 to 4, and these are the children who are today filling our asylums, jails, reformatories, etc. On this basis each successive generation would show an alarming

preponderance of degenerates compared with normal descendants. The following figures, showing how a normal and degenerate family would increase if the stated average rate of increase be maintained:

	<i>Normal</i>	<i>Degenerate</i>
First generation	2	2
Second generation	4	7.3
Third generation	16	53
Fourth generation	64	391
Fifth generation	256	2,854
Sixth generation	1,024	20,837

Thus within six generations the defective would outnumber the normal by twenty times. Then within twenty generations we would be apparently reduced to a nation of defectives. Something must be done to stop the oncoming tide of degeneracy.

It costs \$75,000,000 annually to care for various kinds of defectives in this country, says Dr. John J. Kindred, of Nassau Medical Society. Moreover, 2500 children under one year of age die annually in New York State, due to causes which can be helped through family limitation. Not more than one out of every thousand of stock are expected to die before maturity, but an average of 29 out of 1000 human infants die. These deaths are coming among the defective, the deformed, the crippled, the diseased whose mothers have submitted to the uncontrolled passions of the drunken, diseased or licentious husbands, who claim superior lordship over their wives' bodies and souls and are too far below the animal to give the slightest thought to the probable offspring. Or perhaps both parents are of the same type. In the former case, the wife should be protected against probable conception; in the second case, both parents should be sterilized as the only sane and economic means of preventing the propagation of their kind.

Eighty per cent. of truants, 46 to 89 per cent. of reformatory inmates are feeble-minded, and at least two-thirds of the feeble-minded have inherited their weakness. Of this class we have at least one in every five hundred of the population.

To improve the character is of first importance, but there must be soil capable of improvement, and this cannot be found in diseased or imbecile brain tissue. We must therefore reach

the substrata and remove the causes of those conditions which make for insanity and imbecility.

Other essential considerations bearing upon birth control are the single and higher standards of morals; education of our youth in the ethics of sex; certificate of health before marriage license; sterilization of the unfit, plus all other eugenic and euthenic measures. Such enactment would soon make birth control considerations unnecessary. Birth control, however, is of paramount importance in handling the tremendous social and economic problems of the day. The law that makes it unlawful to control family conception, that makes it a penitentiary offense for a physician to tell parents how to limit their families, even though both parties are reeking with foul disease, is as illogical as it is to say that we should not interfere with a falling object because it is acting in accord with the common law of gravity.

Man fits his law of morals to his own will and desire, unless he be given a standard to go by. It is not for those men and women who are seeking ease that birth control is asked. These will have the benefit of this knowledge at all hazard. It is for the oppressed, diseased and abused women, the married slaves of unworthy men, for the conscientious married couples, and last but not least, for the sake of the unborn, who otherwise come into this world unbidden, unloved, undesired.

Many men who have come perverted from experiences with the prostitute, marry. Because of habit or inflammations and irritations due to venereal disease they are as uncontrolled in marriage as in the prostitute life. It is from these husbands that the law should allow the wife to say when she shall or shall not receive impregnation. These cannot be trained to a controlled sex life. Therefore wives must take them as they find them, and the law should be sufficiently elastic to allow her protection.

In all other things man and woman are allowed to choose their way. Why in this matter of control of conception must they use neither brains, self-control, judgment or in extreme cases contraceptives?

Thus far we have been dealing with effects. Let us go back to first causes. We shall find them in the old satanic lie of man's necessity for the exercise of his physical sexual system. Thought is father of the action.

The key to the social problem is the individual. We must

then deal with man as we find him, and that is with perverted and disordered mental sense, with deterioration of character, with atrophy of soul, with dullness of perception, with physical handicaps. For these, so bound by habit and physical irritations or goadings that they cannot be emancipated by the simpler form of surgery and admonition, the physician should have the liberty and license to sterilize them for *their own good*, or to give methods of birth control that shall eliminate their kind for *the good of the nation*. A woman, however good, though she carry his babe in her body nine months and nourish it with her own blood, *cannot counteract the power from the germ-plasm of this perverted man*. It is high time that good women refuse to bear children for vice, criminality and dependence, or for cannon fuel for future unrighteous wars. It is time to bear in pure blood, welcome, planned-for children, with a father to be proud of, and to so train them that they will be a joy to the family and a power to the nation.

When women understand and demand this birthright for their children, the men will measure up to the standard God set for them, and until then the question of birth control will repeatedly present itself.

All here will agree that the controlled sex life is the ideal. To reach this ideal we must consider the child, and that before its conception. To do this normal parentage is required. To produce a *normal* parentage, the *abnormal* must be eliminated. To eliminate the abnormal, birth control is of fundamental concern for the following reasons:

Because the human family is the nation's foundation; because the child has a right to be well born; because hereditary influences propagate epilepsy, idiocy, imbecility, inefficiency and all other chronic illnesses; because we need to preserve the sturdy, stoic type of people who built up the nation; because the criminal dependent classes are increasing out of all proportion to the normal; because woman should be the conservator of her own body and have the right to say when she is ready for parenthood; because the future generation should be better than the present; because prevention of conception is better than starvation and murder; because children better not be born than to be born to illegitimacy.

Our nation needs a crop of welcome, well-balanced, healthy

children for the making of stalwart citizens and a nation the like of which the world has never dreamed.

High ideals lead to the deepest desire for parenthood. Those fit to have children should and would have as many as they could care for. Those who have low ideals better let the family name die out.

Every conscientious physician will agree that he should be entrusted with the legal right to give instruction where he deems it advisable for the purpose of control of conception without thereby becoming a criminal. By the consent of four reputable physicians an abortion may become legal. *This is taking life and is always to be deplored.* But if the same physicians give information as to the prevention of conception they are guilty of criminality, even, as I said before, though the parties receiving this information be reeking with vilest disease.

LUETIN REACTION.—In a study of the "Value of the Luetin Reaction in Congenital Syphilis" by Murray B. Gordon, M.D., (*Arch. of Pediatrics*, Vol. xxxiii, No. 3, P. 189) a sterile emulsion of *Treponema Pallidum* called luetin prepared by Noguchi in 1911 and which he demonstrated, produced a specific cutaneous reaction when injected into the skin of individuals infected with syphilis, was used and the technique of the test was that as originally described by Noguchi. Twenty-two cases of congenital syphilis were used for the study and 18 gave a positive reaction.

The results obtained in this series are in accord with those obtained by other investigators as to the reliability of the luetin reaction in congenital syphilis. The reaction was present in 81 per cent. of the cases of congenital syphilis and was absent in all non-syphilitic cases but one.

This test is more adapted for pediatric work than the Wassermann. It is especially more so in dispensary work, where it sometimes is almost impossible to obtain permission from the parents to draw blood from a child. The cases cited above amply demonstrate that it is especially valuable in those cases where all knowledge of any venereal infection is denied, or even where it was never suspected.

Familiarity with the technique of the test and the interpretations of the reaction is easily acquired, and made available for every practitioner for clinic or office use. The Wassermann reaction, however, requires an elaborate equipment and a special course of training.

In all the reports on the application of the luetin reaction, not a single case has been reported in which syphilitic infection was carried into the system. This stamps the emulsion as sterile and the test as absolutely safe. As a rule, no general constitutional disturbances are produced.

EDITORIAL

THE NATIONAL FEDERATION OF HOMŒOPATHIC ORGANIZATIONS.

THE question of national federation of homœopathic societies occupied a great deal of attention at the Baltimore meeting of the American Institute of Homœopathy. Dr. Scott H. Parsons, of St. Louis, had agitated the matter for several months, and in order that it might be brought before the Institute in concrete form, he had drawn up a tentative plan of federation. The plan tentatively proposed by Dr. Parsons provided for the direct affiliation of all state, county and local homœopathic societies directly with the American Institute of Homœopathy. Each of these organizations was to pay a certain amount per capita to the Institute and in this way the financial needs of the Institute were to be provided for. In return for this, each state, county or local society was to have the privilege of sending one delegate to the so-called "Congress of States" for each twenty-five members.

The delegates from Pennsylvania held a conference prior to the meeting of the Institute, and were unanimous in the opinion that the plan as above outlined was not practical for several reasons. In the first place, it made it necessary that a man who was a member of several societies should pay dues into the Institute from each society of which he was a member. Second, on the basis of one delegate for each twenty-five members, from every homœopathic society, the number of delegates from Pennsylvania alone would exceed one hundred. In this proportion the total number from all the States would amount to five or six hundred delegates. Such a body would, of course, be totally unsuited to carry out any work for which it might be designed. Third, the plan involved the taking in of many local organizations that are often temporary in their existence, with frequent changes in their membership, and which have no legal or fixed responsibility. Many of these organizations are merely social organizations, dinner clubs, etc. In view of these facts, the Pennsylvania delegation decided to urge upon the Institute the importance of amalgamating the state socie-

ties only for the present at least. Under this plan we are dealing with a comparatively small number of responsible organizations, definitely representing certain political divisions of the United States. It was felt that the organization of the county and local societies in each State would best be left in the hands of the various state societies.

After some discussion, the Institute decided to refer the matter back to the various state societies for discussion, and if favorably received by them, to proceed along the lines of federating the state societies with the Institute, leaving the organization within the states to be determined later. It is probable that this matter will come up for discussion at the coming meeting of the Pennsylvania State Homœopathic Medical Society at Reading, and it is important that every member should give it serious consideration and be prepared to present his views on this important subject at that time. G. H. W.

PHILADELPHIAN HONORED BY THE AMERICAN INSTITUTE OF HOMŒOPATHY.

ALL alumni of Hahnemann Medical College of Philadelphia will be delighted to learn of the election of Dr. William W. Van Baun as President of the American Institute of Homœopathy. Dr. Van Baun is known to every alumnus of "old Hahnemann" as the organizer of the Alumni Association. He has always taken a prominent part in the affairs of the college and in the organization and administration of the various homœopathic institutions and societies in Philadelphia and in Pennsylvania. He is a Trustee of Hahnemann College and Hospital, is Vice-President of the Faculty and holds the Professorship of Dietetics in the college.

It would have been a difficult matter for the Institute to have selected a man with wider experience as an organizer or as an administrator than Dr. Van Baun. Since his graduation in 1880, Dr. Van Baun has served as President of the County, State and numerous local homœopathic societies, and for a number of years was active editor of *THE HAHNEMANNIAN MONTHLY*. It is an old saying that a prophet is not without honor save in his own country, but it is worthy of note that as a candidate for the presidency of the Institute Dr. Van Baun

had the unanimous backing of his professional confreres in Philadelphia and in Pennsylvania.

During the recent session of the American Institute at Baltimore a number of policies and changes of vital importance to the Institute were launched. In order to carry them out successfully, a man with wide experience and skillful judgment will be required. We believe that Dr. Van Baun is eminently fitted to meet these requirements and we confidently anticipate that the Institute will make great progress in organization and in efficiency under his administration.

G. H. W.

TREATMENT OF UNCINARIASIS.—According to the *Charlotte Med. Jour.* for March, 1916, for twenty-four hours preceding the administration of drugs, no meat or vegetables should be given. Oil of chenopodium is administered in one capsule after breakfast, the dose being about ten minims for every five years of age. This is followed by magnesium sulphate, one hour later. This administration is repeated for three days and then stopped. It has the following advantages over thymol: Patients are able to rise for dinner and remain out of bed; they are not sluggish and nonambitious; the length of time in the hospital is reduced, as the oil can be pushed for two days and then, after an interval of two days, repeated, taking eight days in all, compared with two months when thymol is administered; a negative stool is usually found after one or two treatments. Mixed infection with the round worms requires both santonin and thymol, but oil of chenopodium acts remarkably well in both infections. The greatest advantage, however, is the nontoxicity of the drug in therapeutic doses.

GRIPPE.—By Stepp: Emphasis is laid on the common confusion among medical men of the terms gripe and influenza. Contrary to the prevalent idea, these conditions are not the same. Influenza is a specific infectious disease, typically epidemic and now but little seen. Grippe, on the other hand, is seldom truly epidemic, though its incidence often increases at times to a marked extent in a given locality. It is due to a mixed infection and not to a single specific organism. Grippe usually begins in the late spring or early summer and its onset is marked by the symptoms of coryza and rhinitis. Soon there is an extension to the lower respiratory passages, with the development of bronchitis and laryngeal catarrh. In severe cases there is often some circumscribed involvement of the lungs. Recovery from the pulmonary affection is usually prompt, but the nasopharyngeal mucosa remains affected for a considerable time. The condition is seldom associated with high fever, and the pulse is relatively slow and of good quality. The prognosis of gripe is usually favorable.—*Medizinische Klinik.*

GLEANINGS

ROENTGEN-RAY TREATMENT OF EXOPHTHALMIC GOITRE.—In the *Medical Record* of September 4, 1915, Simpson reaches conclusions as follows as to the use of the x -rays in Graves's disease:

1. Many cases of exophthalmic goitre are associated with enlarged thymus glands, and this association often causes serious post-operative symptoms and even death.

2. While such an association will seriously complicate and prolong a surgical operation, it offers no such added difficulties for the Roentgen therapist.

3. Not only such ductless glands as the ovaries and testicle but also the enlarged thyroid and thymus glands as well are very sensitive and may be atrophied by the Roentgen ray.

4. This theory has been amply proved by laboratory experiments and clinical results in many cases of hyperactivity of the thymus gland seen in cases of status lymphaticus and hyperactivity of the thyroid gland—exophthalmic goitre.

5. If these cases of status lymphaticus and exophthalmic goitre will give the Roentgen ray a fair and impartial trial the majority of them will be relieved of all troublesome symptoms and make unnecessary a disfiguring, dangerous, and often futile operation.

6. The above findings are not entirely the writer's own hastily formed ideas, but include the results of several hundred cases of exophthalmic goitres that have been successfully treated by the Roentgen ray, the literature of which is open to all who may care to investigate it.

THE TREATMENT OF ENLARGED GLANDS IN THE NECK.—Older practitioners will remember that twenty-five or thirty years ago cervical glands were very commonly met with in children and in young adults, and many of the older generation at that time bore the scars which indicated that in earlier years they had suffered from lesions in these lymph nodes. At this time, before the clear relationship between infection and enlargement of these glands was thoroughly understood, they received comparatively little attention, so-called absorbent ointments being rubbed in over them, or if suppuration occurred the enlarged gland or glands were incised as would be an ordinary abscess. A little later it became apparent that in a very considerable proportion of these cases these glands were enlarged as the result of tuberculosis, and with this discovery many surgeons insisted that the proper way to treat such cases was to cut down upon these glands and carefully dissect out the entire chain. As time went on it became increasingly evident that a goodly proportion of these cases were not tuberculous, but arose from some other infection of the tonsils, or about decayed teeth, and this discovery materially modified the view of those

who had been most strenuous in advocating extirpation in all cases. Another step forward was reached when the profession recognized that in many of these instances complete excision and dissection of these glands was capable of resulting in much harm, in that it exposed the patient to a more or less rapid spread of tuberculous infection even if the glands which were not seriously diseased were excised along with their badly damaged fellows. At the present time the old dictum that these glands ought to be removed has been replaced by a good deal of caution in the operative method of dealing with them, and it is also fair to state that the internal use of drugs and the external use of ointments do not receive the credit which was at one time given. The only routine or standard method of treatment may be said to be the elimination of the primary focus of infection, and then the upbuilding of the patient's general vitality by an outdoor life, syrup of the iodide of iron and other tonics.

Our readers will recall that some time since we called attention to the fact that the sudden disappearance of marked swelling in the neck in these cases was not to be a subject of congratulation, but of alarm, as indicating that rupture of suppurating lymph nodes had occurred and that the pus was burrowing into adjacent tissues.

In the *Medical Record* of July 10, 1915, Meyer wrote an interesting article upon this subject, stating that in the Division of Child Hygiene of the Boston Board of Health for 1913 there were reported 13,711 cases of enlarged cervical glands among 118,781 schoolchildren, or about 12 per cent, which indicates the relative frequency of this condition amongst the lower and middle class chiefly. As Meyer points out, however, an important part of this report is the statement that all but 2 per cent. of these cases subsided without operation. When suppuration is recognized as being present by fluctuation, the universal rule that pus should be evacuated holds true and the entire gland or glands should be incised. This was the practice thirty years ago. The abscess should be kept open and permitted to drain, and, if necessary, it may be packed with a small piece of iodoform gauze, swabbing out with tincture of iodine, and filled with bismuth paste or a 5-per-cent emulsion of iodoform in oil.

Considering the question as to how many of these cases of enlarged glands are tuberculous in nature, Meyer finds that most authors give from 30 to 60 per cent.

Meyer does not wish to be considered too conservative, but believes that something should be said against universal operation, although he recognizes that there are some instances of marked breaking down in which as radical an operation is to be performed as if the surgeon were dealing with a malignant growth. It is, however, important in these cases to search for the primary cause, as we have already intimated, and remove it.—*Editorial—Therapeutic Gazette.*

THE THERAPEUTICS OF A PHARMACOLOGIST.—A. D. Bush, M.D., writing on aconite says this is one of the drugs much favored by the older practitioners for aborting acute respiratory disorders, but whose place for such indications has been largely preempted in more recent years by the anilin derivatives in combination with quinine and sundry purgatives. It

may well be doubted if the present therapy is any improvement over its predecessor, even after eliminating the various abuses of each.

The main indications for the use of aconite are definite and depend upon a curious physiological condition. With some patients, and under some conditions of acute infection, like that of acute bronchitis, the reaction of the system is almost violent. The temperature of the patient rises rapidly to 104 degrees F. or higher, the heart beats with greatly increased vigor and frequency, there is a full pulse of high tension, a considerable rise in blood pressure, and an acceleration of respiratory activity. So sharp is the attack of the invading organism, and so vigorous the reaction of the system, that for the time being there seems actual danger of nature's overstepping herself and creating mischief through excessive activity. It is in such cases that some external regulating influence seems advisable.

In such reactions aconite is the only drug whose pharmacological provings show a true indication. Digitalis slows the heart, to be sure, but it likewise increases its force, besides producing an elevation of arterial tension. Aconite slows the heart rate by centric action, and the resulting output for each unit of time brings about a fall in vascular pressure, somewhat augmented by a probable depressant effect on the vasoconstrictor centre. Incidentally there is a centric irritant action on the vagus resulting in diminished respiration, also a coincident fall in temperature from an assumed direct action on the thermic centre. In this way the well designated "runaway" condition of the circulatory apparatus is reined in, and its force is directed more regularly and consistently to the task of expelling the invaders.

The tincture of aconite is the preparation recommended. It is administered in small doses (m. ss—j) repeated every six to eight minutes until the total maximum dose required (m. v—xv) has been given—bearing scrupulously in mind, meanwhile, that the medicinal effect of the drug will not ordinarily appear until about twenty minutes after the initial dose, but the effect of any one dose will continue for about five hours.

Aconite, however, ought not to be given in every case of fever, or even throughout selected cases. It is contraindicated in children, in all but a few of women, in sedentary males, and in all cases where the heart is not known to be strong and free from organic disease. Its particular field of usefulness is with hearty, vigorous persons who have lived much out of doors, who have sound, strong hearts and firm elastic arteries. This is the type where there is superfluous physical vigor, where there normally radiates the spirit of bounding health and vitality. The reaction of such a system to acute infection is prompt and sharp. The reflex response is immediate, and frequently excessive, because of the excess reserve power. Aconite here serves to impose the temporary check needed until the system can readjust itself to altered conditions. Here, then, cultured discrimination is essential in determining the right cases and in carefully eliminating those other cases where aconite would do harm rather than good; but such culture is one of the attributes of the true physician.—*N. Y. Med. Journal.*

of Surgery, August, 1915) for the treatment of shock recommends morphine, atropine, camphorated oil, and caffeine or digitalin. Normal saline, warm, with a little adrenalin added, or glucose-soda solution should be administered continuously during the stage of severe shock by enteroclysis. Oxygen inhalations, if available, should be employed when the condition of shock is grave.

The method advised for cleansing the burnt part is sterile normal saline, hydrogen peroxide, tincture of green soap, and if there be grease or oil or much dirt, benzine followed by alcohol. Tincture of iodine is so generally used as an application to dirty wounds that we naturally think of it in connection with burns, but it is too irritating. Saturated solution of bicarbonate of soda is regarded as effective for relieving pain. The best solution is said to be a saturated aqueous solution of picric acid. Ehrenfried is quoted to the effect that this is fifty times more active as an antiseptic than the same strength of carbolic acid solution. It coagulates albumen, and over a clean denuded surface a protective aseptic scab is formed by the coagulation of the secreted serum. Sterile gauze is applied to the wound and thoroughly saturated with the picric acid solution, and over this oiled silk and a gauze bandage are placed. The solution is said to be bland, unirritating, and analgesic. The dressing is removed the third or fourth day and the vesicles are punctured. This is repeated every four or five days until healing is completed, or oftener if there be suppuration or infection. If the urine becomes cloudy the picric acid solution should be stopped.

The author predicts that the open-air treatment will be that of the future. His conception is that after cleansing, the entire area is left open, the lesion being exposed to the sunlight at first for half an hour, this time being gradually increased to an hour or more each day. The temperature of the room is kept high to favor drying. Bland dusting powders are applied daily in the open-air treatment, stearate of zinc and zinc oxide being the favorites. Scarlet red in an ointment of from five to ten-per-cent. strength is recommended where the healing of the growth is slow. It should be applied only to the granulations, as it is irritating.

It is a matter of frequent observation that a person suffering from severe or sometimes even a mild burn and doing well may suddenly become profoundly ill, exhibit convulsions, delirium, falling temperature, and die. The tendency now is to explain these late phenomena as a condition of anaphylaxis induced by absorption of substances from the burned tissues, which act like an antigen, the body after a time becomes sensitized, and further absorption is followed by anaphylaxis phenomena. Heyde notes that similar phenomena can be produced in animals at will by inflicting a small burn, or reimplanting some of their own tissues incinerated outside.—*Therap. Gazette*.

TONSILS AND CHRONIC CERVICAL ADENITIS.—Gardiner (*Lancet*, Oct. 2, 1915) concludes a paper as follows:

In the majority of cases (80 per cent) of chronic cervical adenitis where no obvious source of infection is present the tonsils are infected.

The size of the tonsil makes no difference to its infectivity, except

that the small fibrotic variety is likely to be more dangerous than the large.

The number of cases in which tubercle bacilli are present is relatively small, but is larger than in simple cases of enlarged tonsils.

The frequent presence of other organisms than the tubercle bacillus in these cases suggests that a large proportion of the so-called chronic tuberculous glands are in reality chronic septic glands.

The organisms are present in the deepest parts of the gland, and are therefore only removed by operations involving complete enucleation.

TREATMENT OF SACROILIAC ARTHRITIS.—W. H. Deaderick (*Lancet Clinic*, May 6, 1916) points out that, like most other forms of arthritis, sacroiliac disturbance is usually secondary to a source of infection elsewhere in the body, e. g., the prostate, or the gums. The first aim in the treatment should be, therefore, to locate and, if possible, remove the primary focus. Vaccines or prostatic massage may be necessary or, as in a case the author reports, the administration of emetine for alveolar pyorrhea. *In the case referred to, that of a man of thirty-four years, chills and fever had been experienced almost every summer, about a year before the beginning of the treatment he began to have "rheumatism" of the right hip, with backache and pain referred down the leg, worse at night, headache, and "cold shakes." Marked sacroiliac tenderness was noted, together with pronounced pyorrhea. The patient was given one half grain of emetine by injection daily for six days, with wine of ipecac as a mouth wash, baths in radioactive water, and hot wet packs to the back and legs. In nine days he was able to walk with but one crutch, a week later with a stick alone, and soon after was at work. Strapping the joint with wide strips of zinc oxide adhesive plaster is often indicated, especially where the joint is relaxed as well as inflamed. Massage is grateful to some patients after acute symptoms have disappeared.

DIET IN THE TREATMENT OF PULMONARY TUBERCULOSIS.—David C. Muthu (*Practitioner*, June, 1916) says that it is time for us to recognize that it is impossible to formulate a standard diet suitable to all tuberculous patients, for they differ in age, temperament, height, and weight, in the conditions of their disease, and in their digestive capacity. A diet constituted upon scientific calculation as efficient and satisfactory does not always work out correctly in every day practice. In theory, the value of food can be estimated in grams and calories, but in practice it depends, among other factors, upon, 1, the physical properties of the food stuffs; 2, the assimilative power of the digestive organs; 3, the condition of the patient. The chemical analysis of food stuffs differs as they are fresh or stale, green or dry, and this applies to fish, milk, eggs, meat, fruit, and vegetables, so that the fresher the food, the more easy and rapid is it of digestion, and the more nutritive its value. The stomach should have four hours of rest between meals, and, generally speaking, no food should be given between breakfast, dinner, and supper, though a cup of tea with one thin slice of bread and butter at four o'clock in the afternoon, is often advisable. Overfeeding is both unscientific and injurious, and is apt to induce dyspepsia and other gastrointestinal disturbances. A furred

tongue, a bad taste in the mouth, constipation, headache, with slight pyrexia and sleeplessness are symptoms that the patient is having more to eat than he can digest, and his diet should be cut down. Patients with weak digestion especially should not be overfed, and sometimes it is well to try two meals a day. An exception must be made in patients who have more or less normal powers of digestion, but who are small eaters, who have persuaded themselves that they cannot eat much solid food and so have got into a weak, neurotic condition. The nutritive value of food depends also on the physical and mental condition of the patient. One who takes his food with pleasure will assimilate it easily, while one to whom the food is repulsive will digest it with difficulty and distill toxins from the most nourishing. In arranging diet, the mental condition and temperament of the patient must be taken into account, along with habits of life and idiosyncrasies.

EFFECT OF MINERAL ALKALIES AND OTHER DRUGS ON THE URIC ACID SOLVENT POWER OF THE URINE.—H. D. Haskins (*Archives of Internal Medicine*, March, 1916) reports an investigation of the uric acid solvent power of piperazin, lysidin, and various alkalies, conducted in human subjects. The solvent power was estimated by determining the amount of uric acid taken up when the urine from subjects to whom the various drugs had been administered was shaken with pure uric acid for twenty minutes. It was found that piperazin in one to four gram doses can cause the urine to dissolve an increased amount of uric acid; this effect is most marked if sodium citrate or bicarbonate is also given and if diuresis is avoided. Lysidin, though it can also act as a uric acid solvent, is not of practical value because of the large doses necessary. Lithium carbonate was likewise effective, but proved unsafe, causing toxic symptoms in moderate doses. Sodium citrate and bicarbonate, on the other hand, proved to be safe as well as trustworthy uric acid solvents when given in such doses as to maintain an alkaline reaction of the urine. The doses of bicarbonate and citrate ranged from two to four grams. The greatest total solvent action would probably be secured by combining diuresis from copious water drinking with alkalinization of the urine by sodium bicarbonate or citrate. Whenever normal urine becomes alkaline and contains many metal ions as a result of the diet, it likewise shows a marked uric acid solvent action.

THE DUODENAL TUBE AS A FACTOR IN THE DIAGNOSIS AND TREATMENT OF GALL-BLADDER DISEASE.—Max Einhorn emphasizes the advantages of direct examination of the bile in diagnosing gall-bladder disease. He says he had diagnosed probable cholecystitis by examination of the bile in conjunction with the usual symptoms in forty cases since May, 1914. Thirteen of these cases were operated upon. In the majority of cases in which turbid bile was found in the duodenum in the fasting condition, cholecystitis with gallstones is encountered. Turbid bile may exist, however, without gall-bladder disease when the liver itself is seriously diseased, or in stricture of the duodenum below the papilla of Vater. On the other hand clear bile may exceptionally be found in association with biliary calculi. There are then two possibilities: Either the gall bladder

is not inflamed or the gall bladder is entirely filled with the calculi. In these cases no bile enters the organ and it therefore enters the duodenum in the same state as excreted by the liver. In a number of patients with cholecystitis an attempt was made to instil a weak solution of ichthyol or argyrol into the duodenum just above Vater's ampulla. The writer describes his method of doing this and believes that it possesses a distinct benefit. He has also carried out duodenal alimentation for the relief of gastric or duodenal ulcer; among them were quite a number of patients who had gall-stones at the same time. The latter were benefited not only with regard to their digestive disorders but also in reference to their gall-bladder condition. This occurred in a striking manner with such frequency that he felt inclined to attribute to the duodenal alimentation the decidedly beneficial influence on the gall-bladder lesion. The essayist believes that duodenal alimentation will find an appropriate place in some forms of cholecystitis, particularly when complicated with ulcers of the stomach or duodenum.

CAUSES OF HEMORRHAGE IN CASES OF TUBERCULOSIS OF THE LUNGS.—Dr. Joseph Walsh: Attention is called to the fact that in their description of hemorrhage from tuberculosis textbooks commonly speak of one variety of hemorrhage, that due to a ruptured blood vessel. Treatment in this variety of hemorrhage is frequently futile, but such hemorrhage is rare. The most common variety is that due to an acute congestion produced by the microorganisms of cold about a tuberculous focus. The microorganism most frequently responsible for this appears to be the pneumococcus. Such variety of hemorrhage is seen in epidemic form in association with an epidemic of pneumococcosis, in which one finds the clinical symptoms and signs of tonsillitis, bronchitis, or even pneumonia. The hemorrhage in these cases comes from the acute pneumococcic congestion, and not from the tuberculous focus itself. This variety of hemorrhage may be large in amount, though it is usually small with a continuance of the blood-spitting for several days. When accurately diagnosed it may be ignored and the bronchitis or pneumonia treated independently of it. A third variety of hemorrhage is produced by the breaking down of tubercle in the process of healing. It is usually seen during recovery in acute cases associated with an apical infiltration with scattered tubercles below. It is analogous to a blind boil, apparently healing as such, suddenly changing its course and breaking down with the throwing off of a smaller or larger amount of pus and blood. This hemorrhage is usually in the form of blood-streaked sputum, but there may be sometimes at the beginning as much as a teaspoonful of pure blood. A fourth variety of hemorrhage is that due to the breaking down of an exuberant granulation on the floor of a cavity. It is seen in healing cavity cases and usually stops before anything can be done for it. A fifth variety is that associated with menstruation. There are other varieties the cause of which can not be determined.

APPENDECTOMY UNDER LOCAL ANESTHESIA.—J. Meyer. (*Jour. A. M. A.* lxxvi, 1078.)—The author believes that with the technique described by him the ordinary case can be done in 30 minutes. That there is little pain,

and that post-operative nausea and distention are avoided. He objects to its use in the presence of a mass. He uses a McBurney incision almost exclusively. The technique described is as follows:

One-half hour before operation, morphine gr. $\frac{1}{4}$ hypodermically. The solution used is a novocain 1 per cent. to which adrenalin 1-1000, 20 gtt. have been added to the ounce of the novocain solution. The skin is injected so as to form blebs. The sub-cutaneous fat is then injected. After a wait of 3 minutes the skin is incised. The aponeurosis of the external oblique is injected and cut after 3 minutes. The internal oblique and peritoneum are treated the same. The meso-appendix is injected, ligated and divided. It is rarely necessary to inject the base of the appendix.

He points out that about 15 minutes of the total time is consumed in waiting after the individual injections, but considers that this is by far over-balanced by the absence of the troublesome post-operative distension, depression and nausea as seen when ether is used. He believes that all tissues should be handled very gently, using a sharp knife in preference to scissors and avoid traction as much as possible.

J. G. SPACKMAN.

PYLORIC EXCLUSION: AN EXPERIMENTAL AND CLINICAL STUDY.—R. Lewisohn. (*Surg., Gynec. & Obst.* 1916, xxii, 379.)—The author believes that the view still held by some surgeons that a patent pylorus does not continue to functionate after a simple gastro-enterostomy, is a false one and should be discarded by all.

He points out the fact that Kelling established this point 15 years ago by means of a gastro-enterostomy and a duodenal fistula in the same patient. He found that most of the stomach contents escaped by way of the fistula.

He believes that without pyloric occlusion a simple gastro-enterostomy will not remain patent for any considerable length of time.

He reviews the different methods of pyloric occlusion as follows: (1) The unilateral pyloric occlusion of Eiselsberg: This is accomplished by a complete division of the pylorus: The stumps are infolded. That this is the only method that will guarantee a permanent closure. The technique is difficult and the dangers are great.

(2) Kelling-Mayo or the method of infolding sutures applied transversely to the pylorus. The technique is simple but the results are by no means permanent.

(3) Wilms, occlusion by means of an auto-plastic material as the fascia lata, cut in long strips and tied over the pylorus. The bands become necrotic and absorbed. There are no permanent results.

(4) Kelling-Berg-Cackovic, Parlavacchio, Biondi, occlusion by means of foreign material as wire, Pagenstecher, etc. Simple in technique. The material after a time cuts through the different coats gradually. They in turn heal after it has advanced, so at no time is there a perforation of the pylorus which is continuous from the inside out. The ligature finally ends in the lumen. There is no permanent occlusion.

(5) Biondi, occlusion by means of a longitudinal incision through the sero-muscular coats exposing the mucous membrane, which is tied off and divided between the ligatures. The sero-muscular layers are then sutured.

The technique is difficult and the dangers are great on account of the accidental opening of the mucous membrane and soiling the field of operation by the escape of the contents.

In conclusion, from reports and the results shown by animal experimentation and subsequent autopsies, he believes that; (1) The only permanent method is that of the unilateral closure of Eiselsberg. But that it should not be used on account of the difficult technique. (2) That an absolute though temporary closure provides for a cure of pyloric and duodenal ulcers. (3) That the occlusion stitch (Kelling-Berg-Cackovic) is the method of choice to be used in the treatment of pyloric and duodenal ulcers.

J. G. SPACKMAN.

NUTRITIVE VALUE OF BOILED MILK.—In a report on the the study of the Nutritive Value of Boiled Milk by Amy L. Daniels and Sylvia Steressy, (*Amer. Jour. Dis. of Child.* Vol. 11. No. 1. P. 45). Rats just past the suckling period were used for the investigative and were fed on boiled milk (boiled for one minute, five minutes and forty-five minutes, respectively). Other rats were fed pasteurized milk. Rats on raw milk were used as controls.

SUMMARY

Our results point to the conclusion that milk heated to the boiling temperature or thereabouts is an inadequate food. Rats fed on boiled milk grew to about half their normal size. Although we have been able to keep these experimental animals for many months on boiled milk, in no case have we got reproduction, nor have any of our animals reached the normal weight for adults rats.

Milk which is kept at the boiling temperature for forty-five minutes is no less efficient as a food than milk boiled for much shorter periods—ten minutes or one minute. The chemical changes which make heated milk an inadequate food are brought about at the boiling temperature or thereabouts. The value of pasteurized milk as a food, therefore, will depend on the temperature to which it is heated during the pasteurization process. Heating milk to a higher temperature than boiling (114 C.) makes it even less valuable as a food.

Although boiled cow's milk is an inadequate food for rats, it is apparently better borne than raw or pasteurized cow's milk, for we have been unable to raise young rats on either exclusively. However, rats fed both raw and pasteurized milk to which small amounts of meat extract were added grew at the normal rate. The explanation of this lies, possibly, in the fact that the meat extract caused an increase in the digestive secretions, thus making the milk more available.

The advantage of using raw milk for infant feeding is obvious. When babies are unable to digest raw cow's milk, however, or there is danger that the milk may be contaminated, we believe that the pediatricist is justified in using boiled milk. When this is given, the mixture should have a higher protein content than when raw milk is used.

V. A. H. CORNELL, M. D.

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THE SURGICAL TREATMENT OF GASTRIC ULCER.

BY

WILLIAM B. VAN LENNEP, A.M., M.D., F.A.C.S.,

PHILADELPHIA, PA.

(Presented to the Surgical and Gynecological Society of the American Institute of Homeopathy, at Baltimore, Md., June 28, 1916.)

WITH the understanding that my associate, Dr. Eberhard, will discuss the diagnostic or clinical aspects of gastric ulcer, I shall confine myself to a *resume* of our experience, at the Hahnemann Hospital, with the surgical measures for the cure of these ulcers and some of their complications and sequelæ.

Gastro-jejunosomy of the posterior type, with a short loop, or better without any loop at all, is the operation most frequently performed, and this is now a well-established and generally recognized surgical procedure which has been so perfected that it can be classed with those upon the appendix, the gall bladder and the pelvic organs of the female. It is quickly performed and involves *per se* a minimum of risk.

The transverse colon is drawn out and up onto the abdomen and the stomach pressed against its mesentery with the fingers of the left hand. At a non-vascular point, just to the left of and above the duodeno-jejunal junction, the omental bursa is opened and the posterior wall of the stomach drawn through. This is picked up with padded forceps, four inches or more apart, and grasped by the first two blades of the Roosevelt clamp. The site selected for the anastomosis should be as low as possible, or as near to the pylorus as possible, to insure good drainage, even in the absence of obstruction.

The initial jejunum is next picked up in like manner, on its free border and along a line exactly opposite to its mesentery, and clamped with the third blade. This should extend close to the duodenum to prevent any loop, and the gut should lie against the stomach from right to left, producing an antiperistaltic current. This is the natural position of the uppermost jejunum, but occasionally there is a peritoneal fold running down on its free edge and swinging it over to the right. Such folds at first sight are apt to be looked upon as adhesions, but the arrangement is constant and the fold must be divided to allow the gut to resume its normal direction otherwise a kink will be produced, as was at times the case when the isoperistaltic attachment was made.

The two surfaces are then united, close to the clamps, by a continuous peritoneal suture of Pagenstecher thread, sewing toward the operator and leaving the initial end long, to do the same when completing the anastomosis. In view of the occasional reports of ulcers at the gastro-jejunal junction, presumably due to the irritation of such a continuous, non-absorbable suture, it is probably wise to use interrupted or mattress peritoneal sutures, or a continuous one of reliable, long-lived, chromic catgut. We long ago learned to use catgut for the internal suture, as non-absorbable material is apt to work out and hang down over the opening, obstructing the same.

The stomach and jejunum are then opened, the former more freely than the latter, the walls of which stretch readily, and the redundant intestinal mucosa trimmed off, as well as that of the stomach occasionally. The opening is united posteriorly by a continuous buttonhole suture of chromic catgut, again sewing toward the operator and leaving the initial end long, and anteriorly by in-and-out looped stitches which control hemorrhage and turn in the edges very nicely. This has been our usual technic, but we occasionally apply a second layer of catgut sutures posteriorly, through and through, before opening the mucosa. This is to insure a more perfect hemostasis, although I know of but one hemorrhage in our hospital which required a reopening of the wound and stomach.

The clamps are then opened, the entire seam carefully examined for any bleeding point, which is readily controlled by a stitch, and the peritoneal suture completed.

The meso-colic window is now fastened to the line of union, or better, to the stomach a little above it, and the organs

replaced. In this way both is a hernia into the lesser peritoneal cavity prevented and a double ring obviated. Two or more fingers should be readily invaginated through the anastomotic opening. The technic thus given in detail will be referred to without repetition in connection with other operations upon the stomach.

Anterior gastro-enterostomy, though far inferior, still has its sphere; for example, after resections removing the posterior wall more extensively, in inoperable cancers, perhaps, and especially when adhesions, inflammatory in character or from undue closure of the omental bursa, preclude the posterior operation. A loop of the jejunum some fifteen or more inches long, is brought around and fastened to the anterior wall of the stomach just as in the posterior operation. By attaching the top of the loop beyond the anastomosis by several stitches on either side, the necessity for an entero-enterostomy may be obviated and the procedure thereby considerably simplified.

It is in the presence of obstruction to the escape of food that gastro-jejunostomy offers the best prospects, and every surgeon can testify to the brilliant results obtained. In the absence of such obstruction, however, we have had a number of cures, but the improvement has been much more slow. For months the stomach has filled with bile, necessitating repeated washings, especially in the morning, and this in the absence of vomiting from such regurgitation. In obstructed cases, too, there has been a similar regurgitation, but to a much less degree, and it would seem that the alkalinity so produced favors the healing of the ulcer.

We have had but one fatality from post-operative vomiting, and this could not be termed a vicious circle, as the abdomen was reopened and no obstruction or kinking about the anastomosis was found. Attempts to produce artificial obstruction about the outlet have failed as a rule, or at best have been but temporary. Infolding the duodenum, especially in the presence of ulcer, has been practised with fair success.

Hemorrhage, when moderate, whether from the calloused ulcer or the non-palpable, non-visible fissure, erosion, "weeping patch," mucous or "medical" ulcer, has been controlled by gastro-jejunostomy. Severe hemorrhage requires a direct attack on the bleeding point, and this is even more necessary in the duodenum, but unfortunately many of these cases die before this can be done.

Theoretically, Finney's gastro-pylo-duodenostomy is the ideal operation and gives good drainage. The pyloric portions of the stomach and duodenum, however, must be mobilized to bring the two surfaces together, which is not always possible, and besides, the tissues are often so affected by disease that they cannot be safely sutured. The method is occasionally applicable when combined with the excision of a small lesion, but it has seemed to us that the results generally have not been as quickly satisfactory as those following posterior gastro-jejunosomy.

After laying the duodenum and stomach alongside each other and steadying the ends by traction stitches, the peritoneal surfaces are attached by a continuous suture of celluloid thread, the lower end being left long. The U-shaped opening is then made and its edges united by one or two layers of cat-gut as in gastro-jejunosomy. The peritoneal suture is finally continued to the top of the U and anchored there.

In view of the cancer menace of ulcer, the frequent "turning" to the *ulcus carcinomatosum*, the question of excision assumes a just importance. Fortunately, two factors give us a better outlook in this connection: First, the evidence adduced by the Mayos especially, as to the greater frequency of duodenal ulcer, and second, the fact that carcinoma of the duodenum is comparatively rare. Once, then, we can demonstrate that the calloused area is beyond the pyloric vein or veins, we can largely eliminate the danger of cancer. Again, experience has shown us that cancerous degeneration is rare in these ulcer indurations after a well-draining gastro-enterostomy, and if cancer does develop, that it probably was already present when the operation was undertaken. Such a possibility should be suspected from a rapidly falling acidity in a patient known to have had ulcer for some time. Somewhat analogous is the frequency with which we palpate a stony-hard, nodular head of the pancreas, which we are sure is cancerous, and see it melt away after draining the gall-bladder.

Once to the left of the pylorus, in the stomach proper, with the coinciding geography of ulcer and cancer, *i. e.*, the terminal antrum and the lesser curvature, the question of excision deserves serious consideration. If this does not add materially to the danger of the operation, surgical opinion is growing to favor the same.

On the lesser curvature the vessels at either end are double

tied, the diseased area, usually a "saddle ulcer," clamped in a V shape and excised. The openings are then united by peritoneal and through-and-through inside sutures of Pagenstecher and chromic gut respectively, as in gastro-jejunostomy. The procedure is much the same when the ulcer is on the greater curvature, the vessels in the gastro-colic omentum being tied close to the colon to insure the removal of the lymph glands. Both procedures are combined in a median gastrectomy. If constriction results, a posterior gastro-jejunostomy is added.

The not uncommon hour-glass stomach is best treated on the Heineke-Miculicz principle, by transforming the incision in the long axis of the stomach into a transverse wound and then suturing the same as in gastro-jejunostomy. The last-named operation may also be called for to drain a large pocket in an unevenly divided hour-glass stomach, and occasionally the two pockets may be anastomosed, just as in gastro-jejunostomy, by a gastro-gastrostomy. In small and favorably located ulcers the cautery method reported by Balfour has much to recommend it and should be given a trial. The calloused area is burned through with the hot iron and the opening closed by layers of catgut and celluloid stitches. If practicable, a graft from the gastro-hepatic omentum is drawn over the line of suture.

Pylorectomy, with excision of more or less of the adjacent stomach, particularly the lesser curvature, according to the extent of the calloused area, has been used considerably, but this is a procedure which belongs in its origin and development particularly to cancer and is therefore beyond the scope of this paper. By ligating the four principal sources of blood supply, the gastric, pyloric, gastro-duodenal and left gastro-epiploic, the Mayo brothers have done for gastrectomy what was accomplished by similar ligations in the modern hysterectomy. Their perfected operation, with a further attack upon the lymphatic routes of spread, is in marked contrast with the work of Billroth and his assistants, Wölffler, Miculicz and Von Hacker, which I had the good fortune to watch over a generation ago, and I well recall Billroth's remark concerning the hopelessness of gastric cancer.

In inoperable malignant disease both posterior and anterior gastro-jejunostomy often fail to give the desired relief and are at times impossible on account of the extent of the disease. Some surgeons believe that incomplete removal by gastrectomy

will give the best and longest benefit, but it has seemed to us that the measure is a hazardous one in patients who are already weakened by the disease and should do more than palliate if undertaken. We have therefore practised jejunostomy on the principle of Witzel's gastrostomy with most gratifying results. It is safe, quickly carried out and sets the stomach entirely at rest. The technic of the operation will be described by my colleague, Dr. Elliott, in his paper on "Acute Perforation of Duodenal Ulcer."

The incision we use is to the right of the midline, between the ensiform and umbilicus, which facilitates a low anastomosis besides giving access to the pylorus, duodenum and other organs. When we recall the many ills which have their mouth-piece in the stomach and the varied reflex origin of pylorospasm, it becomes our duty in every operation, when distinct gastric lesions sufficient to account for the symptoms are not to be found, to extend the exploration to the gall-bladder, pancreas, cecum, appendix, in fact, to the entire intestine from the duodenum to the transverse colon, to say nothing of the kidney and pelvic organs. With a patient in good condition, this is safe routine practice. We have met with several cases of gastroptosis in which a gastro-jejunostomy was done without relief on the supposition that they were suffering from ulcer. Of course ulcer may coexist and will call for the anastomosis, but the stomach must be raised as well. These patients have pain after eating, but it is from the quantity and not the quality of the food taken. They have no bleeding and no hyperacidity, but they may have food retention from the pyloric kinking of a "fish-hook" stomach. We have in the operation of Rovsing an admirable method of replacing and holding up not only the stomach, but also the liver and colon.

A word concerning the preparation of these cases and the post-operative treatment, and I am done. We try to keep stomach cases in the hospital for two or three days or more, and this is necessary too, for X-ray examinations and other tests. If there is food retention the stomach is thoroughly washed, after which nothing but sterile fluids are administered and the teeth and mouth frequently cleansed with weak carbolie solution. A laxative is given twenty-four to thirty-six hours before operation to permit of peristalsis being re-established, and for about twelve hours proctoclysis is instituted to give us a wet peritoneum and start elimination. At about the same

time they are scrubbed and shaved and are given a hot bath followed by a good sweat. Just before the anesthetic the stomach is again washed. Ether, preceded by gas and oxygen, is generally used. The skin is prepared in the operating room by a rub with benzine and bichloride alcohol and then wiped with "seal-skin."

After operation they are put to bed in a sitting posture, kept comfortable with morphia, and enteroclysis again started. In the absence of vomiting, cracked ice or sips of hot water are given in ten or twelve hours, or after the ether effects have passed off, and the diet is gradually increased from day to day. When peristalsis can be heard on the left side, low down, a compound or soap-and-water enema is given and repeated as necessary. The stitches or clips are gradually removed in about a week and the average patient is ready to go home in two weeks, wearing a snug binder, which is used for several months.

A FEW REMEDIES IN THE HOMŒOPATHIC TREATMENT OF ASTHMA.

BY

P. E. KRICHBAUM, M.D., MONTCLAIR, N. J.

(Read before the Homœopathic Medical Society of the State of New Jersey,
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BEFORE taking up the remedial treatment of asthma, to which this paper is to be strictly confined, I want to define in a few words the distressing condition itself, even though in so doing I infringe upon a phase of the subject to be treated by someone else.

Asthma, then, may be defined as a dyspnœa of peculiar urgency and violence, generally paroxysmal and recurrent, often periodic, not necessarily attended by cough or expectoration, accompanied usually by dry rales and compatible with easy and healthy respirations in the interim of the attack. As may be readily understood, our materia medica is rich in remedies easily fitted to meet the many and varied symptoms of this complaint. If, in introducing a few of these to you, I parade the same old earmarks, it is because the said earmarks are generally the first seen in the process of bringing our observations of our patient and his remedy together.

Chamomilla may be useful in asthma when the character-

istic mental symptoms obtain, or when an attack is precipitated by anger. The chamomilla patient is spiteful, vehement, uncivil, excessively sensitive to pain—in a word, absolutely intolerant of any physical distress. Chamomilla increases this general nervous sensibility, and, like coffea, stimulates the cerebral function; but chamomilla antidotes coffea. The coffea patient can't stand pain, but chamomilla won't stand it, and says so.

If chamomilla, then, be thus brought to our attention, and its application follow, we will find our patient afflicted with catarrh and hoarseness. There is an accumulation of tenacious mucus in the throat. The hoarseness may be accompanied by stitches and burning in the larynx, or, worse still, by very distressing spasmodic contractions. The cough threatens suffocation. The rattling in the trachea is plainly heard, together with persistent wheezing. Chamomilla is suited to attacks of flatulent asthma where there is great anxiety, with fullness and oppression in the precordial region, and shooting pains in the chest chiefly on breathing. As may be imagined, none of these uncomfortable symptoms are philosophically borne. The chamomilla vehemence, here as elsewhere, serves but to complicate matters. The chamomilla adult is but the chamomilla child grown up. You may not be asked to carry him, but you will be most emphatically requested to relieve him, and that right speedily, or the task will be delegated to someone else.

In bronchial asthma podophyllum, our vegetable mercury, often has a place, though we are accustomed to think of this remedy only in diarrhoea where the liver is involved. It produces an indescribable sick feeling all over, with a persistent dry, rough sensation in the pharynx and œsophagus extending along the right eustachian tube. There may be a feeling of a ball or a lump in the upper œsophagus, with a dull, aching pain in the right ear. The podophyllum asthmatic has an exceedingly uncomfortable stomach, in addition to his respiratory difficulties. He complains of fullness and is tormented with belching of gas and sour eructations, marked salivation, and an offensive odor from the mouth. This same patient will speak sometimes of a great desire to press the gums together. If the patient be a woman, she will explain to you that she feels as if her genital organs would fall out when her bowels move. In chronic bronchitis, when podophyllum is of service,

there is an inclination to breathe deeply. Or in bronchial asthma there may be a feeling of suffocation on first lying down at night, aggravated by catching cold. One queer symptom is recorded in this connection, and is described as a snapping in the right lung like the breaking of a thread, when taking a deep breath. This desire to breathe deeply is very marked, and when oppression of the chest is present, is often unhappily prevented. Podophyllum has such a range of classical intestinal and stomach symptoms, its correct application in any given case is not difficult.

In the dry asthma of the stone cutter, silica of course finds its mark. The silica patient is well differentiated from childhood up. We all know the train of evils which follow in the wake of this patient's defective assimilation. He needs *grit* morally and physically. Silica is called the chronic of pulsatilla. Pulsatilla skims the surface, so to speak, while silica digs beneath and stirs up a much deeper layer of troubles, whether it strikes the rickety child or the asthmatic old man. It is a remedy full of abortive efforts—to wit, the familiar half-protruded stool, with its slipping back. Silica's feet are often notorious when uncovered. It is a point never questioned when present. The silica headache has a sphere of its own. This chronic headache begins in the neck and extends up to the head. It is aggravated by a draught of air, or by uncovering, and relieved by pressure and wrapping up the head warmly. (Like gelsemium, it has another queer headache amelioration, by profuse urination.) Silica is a remedy of fixed ideas. Perhaps the patient will think only of pins, fears them, searches for them, counts them carefully. Causes insanity. Your epileptic patient, when silica is the remedy, is worse, we are told, at the full or new moon. The silica subject is so devoid of vital heat that even exercise will not warm him up. The very finger tips may be described as feeling dry at night, as if made of paper. The silica entity must be perceived before any call for it in cases of asthma is understood. It is not superficial in its action. The silica cough is marvelously easy to provoke, a cold drink, even momentary use of the voice, if a paroxysm is imminent, being sufficient. When silica coughs something is doing. Severe vomiting of mucus is not uncommon. The silica asthmatic is proverbially short of breath, cannot hasten his steps or perform any light manual labor without puffing. If you find a case of asthma where there is an abscess in the

lung, think of silica. In such a situation its deeply penetrating characteristics find proper scope.

In catarrhal cardiac asthma *sabal serrulata*, the saw palmetto, may serve you well. In the mental sphere we find that sympathy makes this patient angry. He is not a whining patient, but he is full of fears and apprehensions—fears to fall asleep lest something should happen, starts up when dozing and fights to keep awake. The saw palmetto is associated in our minds with man's urinary apparatus. Indeed, its special regional affinities are the prostate, bladder and urethra in men, and the ovaries and mammæ in women; but upon individuals with weakness and irregularity in these parts, a certain type of asthma may descend, and then the saw palmetto works. Under this remedy we note great tenesmus in the neck of the bladder, with heavy aching pains and a sensation of coldness in the external genitals. Naturally you would expect to come upon marked incontinence of urine as well as impotency. Iritis occasionally calls for the saw palmetto when the prostate gland is involved.

A peculiar exhibition of humid asthma may be encountered, calling for *pecten* (*scollop*), a remedy introduced by Dr. Swann. Under *pecten* there is quick, labored breathing. The patient cannot lie flat, nor on his left side, while there appears to be a constriction of the chest, especially on the right side. The asthmatic attacks are preceded for two or three days by sneezing, excessive coryza, a burning sensation in the throat and chest and a feeling of fullness in the head. The attack ends with a copious expectoration of tough, stringy and frothy mucus. The cough is worse after 6 P. M.; indeed, all symptoms are worse at night.

Patients afflicted with hysterical asthma are in a class by themselves. *Nux moschata* should be studied here. This remedy produces some very queer states of exultation resembling hysteria, the mesmeric state, double personality, etc. Drowsiness, chilliness and thirstlessness are the tripod of peculiarities for *nux moschata*. The patient will tell you that his chest feels as if in a vise, or as if there was a load on his chest. There may be stitches in the chest with spitting of blood. The cough is varied under *nux moschata*. It may be dry with suspended respirations after a chill in the water or after getting wet. The saliva seems thick like cotton. Or the patient may cough with or without expectoration when becoming

warm in bed or when warmed up from work. In asthma with the before-mentioned hysterical base, there occurs great difficulty in inhaling. The patient exhibits a tendency to faint. He will describe all manner of odd sensations, feels as if drunk, as if floating in the air; objects about him appear too large. He drowns off. The *nux moschata* patient will complain of excessive flatulency and constipation, which last is frequently accompanied by an exaggeration of the typical drowsiness.

When *corallium rubrum* is needed in asthma, you will find an almost continuous paroxysmal cough which begins, like mephititis, with gasping for breath. The face is purple. There is vomiting of stringy mucus, the whole followed by pronounced exhaustion. The condition is extreme and the picture alarming. Back of the acute attack is apt to be found a combination of syphilis and psora, which perhaps is an animating factor. The eruptions of *corallium rubrum*, strange to relate, are markedly red. Red flat ulcers often appear on the glans and inner surface of the prepuce, with secretion of yellow ichor. The feet are cold when uncovered, and too hot when covered. *Corallium rubrum* is complementary to sulphur.

Cuprum metallicum's regional activity centers in the cerebro-spinal system. This medicine affects the nerves, muscles, blood and digestive tract. When needed it is needed badly, for the manifestations which call for it are extreme. Convulsions run through its symptomatology. The muscles draw up in knots. The dyspnœa is terrible, the patient cannot bear anything near the mouth for fear of spasms of the glottis. There is constriction of the lower chest. The cough is dry, with fits of suffocation like whooping cough. Bronchial rales are heard as if from mucus. Cases of severe spasmodic asthma are frequently helped by *Cuprum*. These attacks are apt to increase from 1 to 3 A. M., and are aggravated by bending the body backward.

When you run across a case of asthma prominently associated with gastric symptoms and a peculiar sensation of weakness at the pit of the stomach, think of *lobelia inflata*. The *lobelia* patient is afflicted with ailments that never clear up. Obstinate wens on the scalp occur, all sorts of trying eruptions manifest themselves between the fingers, on the dorsum of the hands and on the forearms, consisting of small vesicles, accompanied by a tingling itching and resembling the itch vesicle exactly. The almost constant dyspnœa is aggravated by

the slightest exertion and increased to an asthmatic paroxysm by even the slightest exposure to cold. The sensation of weakness and pressure in the epigastrium, rising thence to the heart, with constant heartburn, is lobelia's most marked and individual indication. The cough of the asthmatic patient under lobelia is spasmodic and is associated with sneezing, belching and gastric pains. Nausea is continuous and accompanied by a constant flow of saliva. The lobelia patient in the throes of an asthmatic attack will assure his attendants that death is near. The weakness takes his courage and disturbs him quite as much as the accompanying dyspnoea.

If you are called to prescribe for a case of periodic asthma in a gluttonous, fleshy old man, whose bowels are deranged by the least irregularity in diet, a patient in whom a chronic bronchial catarrh with profuse mucus expectoration has manifested itself, think of *allium sativum*. The cough appears to come from the stomach in these cases. The breath is fœtid and your patient will cough from smoking; mucus rales are heard in the bronchi almost continuously. The pains of *allium sativum* are distensive, stinging, with paralytic weakness, increasing and decreasing gradually like *stannum* and sulphur. Your patient may complain of this kind of pain in the psoas and iliac muscles, aggravated by the least movement, though he can lift the limb with the hand.

When you encounter a case of nervous spasmodic asthma, *valeriana* should be studied. The typical *valeriana* patient has a very changeable disposition, and her symptoms switch back and forth with the same tendency to alteration. The *valeriana* pains are continuously on the move—now here, now somewhere else—with no settled location. *Valeriana* has many illusions of taste and smell. The oft-quoted sensation of a thread in the throat is typical. There is a fatty taste in the mouth, with nausea in the throat and an almost constant pressing pain in the lower part of the chest, the arm pit or the stomach, as if something were there forcing itself upward. These are true hysterical markings, but they are valuable aids in prescribing for your patient. The typical *valeriana* subject is one in whom the intellectual faculties predominate, but the intensity and variety of the purely nervous symptoms which attack patients calling for this remedy make them very difficult people to reassure. Their irritability is marked. Choking in the throat pit on falling asleep wakens as if suffocating.

Inspirations grow less deep and more rapid till they cease, then your patient catches her breath by a sobbing effort in spells—so reads the text. Valeriana will work wonders here.

In pituitous asthma *sinapis nigra* stands very high. The throat is hot and swollen, worse on the left side. The tongue is dry, with a dirty whitish coating and a crack in the middle. Hot, light red mucus membranes, which feel dry and scalded to the patient, are marked. In cases of asthma complicated with hay fever, think of *sinapis nigra*. Here a scanty acrid discharge from the nose, with the excoriation beginning on the *alæ nasi*, is guiding; also that very peculiar but characteristic symptom of sweat on the upper lip spells *sinapis nigra*. If you are gunning for pathological lesions or bacterial infections alone, such apparently inconsequential evidences of disorder will never cause you to pull a trigger for your patient's relief. But to a prescriber who is willing to acknowledge an occasional inability to neatly docket all of his findings and place a label on them before he prescribes, these very minor peculiarities of patient and drug are often pertinent and powerful when accurately brought together. The cough under *sinapis nigra* is short and hacking, usually dry, but at times sputa in small, tenacious lumps is raised. This cough is worse in the evening, though it sometimes disappears upon retiring.

If you meet a case of so-called splenic asthma, *scilla maretema* or squills may help you out. The cardiac action of this remedy is exactly the same as that of *digitalis*. The patient requiring squills will suffer continuously from asthma as a complication of a splenic affection. He is invariably worse at night and has a splenic cough. The pain will run from the splenic region into his throat. It has stitches under the free ribs on the left side. Rattling precedes the cough. This cough is loose in the morning but severe and dry in the evening. Tears gush on coughing, and bladder control is uncertain even with sneezing. The teeth show black marks in hay fever. The patient constantly rubs his eyes, around which bloating is marked. In pleuro-pneumonia and angina pectoris, squills has been curative. Stitches in the left chest, hot, scanty urine, great weakness and anorexia are guiding here.

Cardiac asthma may be relieved by *quebrachs*. This remedy produces respiratory paralysis, slows the heart action and even induces paralysis of the extremities in anemia. Your asthma patient under *quebrachs* will have a livid face and suffer greatly

with dyspnœa and cyanosis. Emphysema may also complicate matters, and even slight mitral murmurs be heard.

Another useful remedy in cases of cardiac asthma is ambra. This medicine has a decided affinity for the pneumogastric nerves and is rich in peculiar nervous symptoms. Your ambra patient is very easily agitated and embarrassed. The slightest thing affects his breathing and heart. Embarrassed in company, cough worse when people are present. Cannot tolerate the presence of others when urinating or during stool. In the asthma of old people and children ambra is frequently indicated. The cough is spasmodic from tickling in the throat, with expectoration of yellowish or grayish white mucus tasting saltish or sour in the morning. Ambra also has a convulsive cough, with short breathing and oppression felt in the chest and between the scapulæ. The heart under ambra palpitates frequently when walking in the open air. The face is pale and there is pressure on the chest as if a lump lodged there. Your pneumogastric is out of order and false signals are being given.

The asthma of drunkards or consumptives is sometimes helped by mephitis. The patient chokes easily while eating, and coughs upon the slightest provocation. The mephitis cough is typical and most distressing, whether found in whooping cough or asthma. It is spasmodic in character, very violent, often to the point of partial suffocation. It is worse at night and at daybreak. The patient feels as though he had inhaled the fumes of sulphur, and shows unspeakable uneasiness during the asthmatic attacks. Great inclination to sleep is a symptom. Another peculiarity of the mephitis patient is that he can endure extreme cold; washing in ice water is pleasant.

When ipecac is indicated in asthma, the well-known ipecac symptoms will of course be present; briefly enumerated, they are as follows: Persistent nausea, horrid nausea, stomach feels as if hanging down, face pale, tongue clean, shortness of breath, violent dyspnœa, with wheezing and great weight and anxiety about the precordia, loose rattle within the chest without expectoration like moschus. Paroxysms of shaking, incessant or suffocating cough with every breath. A child will stiffen out, turn red or blue, and finally gag and vomit. Ipecac is not difficult to recognize.

Bryonia is often useful in asthma, but is prescribed more

upon the general condition of the patient than upon any peculiar type of asthmatic disturbance. The heavy, splitting headache, the dry mouth, with its bitter taste, the thirst for much water, the sharp stitches in the chest, the dry, painful cough, the difficult breathing, possible only with the assistance of the abdominal muscles, the oppression of the chest, with the fits of choking—all these are indications for *bryonia*, and are too well known to need any further elaboration.

In hæmic, or simple, uncomplicated asthma in a corpulent individual, *platta orientalis* may be of service. One peculiar characteristic of this remedy is a sensation all over the body as if heat was radiating from the ears, eyes, top of the head, palms of the hands and soles of the feet. The asthmatic attacks come on at night about 9 or 10 o'clock, and keep the patient from lying down; indeed, he will begin to cough as soon as he tries to lie down. The cough is troublesome and attended with a frothy expectoration.

If you have a case of persistent humid asthma which began as a chronic catarrh, with symptoms of œdema of the lungs, think of *pulmo vulpis*. The indications for this remedy read: Strong, sonorous, bubbling rales, now rattling, now whistling, heard over the whole chest and even some distance away, perceptible to palpation. Accelerated short breathing, amounting to suffocation even without heaviness of the chest, frequently with cough and inability to expectorate. *Pulmo vulpis* may also be indicated in cases where only shortness of breath becomes asthmatic if the patient makes the least bodily exertion.

The foregoing are but a few of the many remedies, proven and unproven, in our *materia medica* which should receive your careful study when prescribing for this painful condition. I appreciate that I have but picked up a fragment or two here and there, but a mere suggestion, in any sense arresting, sometimes stirs our interest. Meanwhile, the whole structure of these medicines are ours for a better and more elaborate study.

DIFFERENTIATION OF THE MERCURIES IN THROAT TROUBLES.

BY

CALDWELL MORRISON, M.D.

(Read before the Homœopathic Medical Society of the State of New Jersey,
June, 1916.)

MERCURY is one of the oldest, best known and most widely used of all remedies. It is a deeply acting drug affecting almost every tissue and organ in the body and being excreted by every channel of elimination—bowels, kidneys, skin and glands. In the organic system it affects chiefly the mucous membranes, the serous membranes, the glands, the parenchymatous organs, the skin, the bones; and primarily it increases secretion, produces inflammation and swelling, and if further continued tends to ulceration, suppuration and necrosis. The remarkable similarity of its pathogenesis to the effect of syphilitic poison has long been noted.

The symptoms of mercury poisoning show its marked effect on the mucous membranes, and therefore its applicability to throat and tonsils. In poisoning cases the patient early develops a disagreeable odor to the breath, a bad metallic taste in the mouth, more or less nausea, with increased secretion of saliva, swelling and soreness of the mouth and gums, which tend to bleed easily. A dark bluish red line appears in the gums, which become spongy and sore and ulcerated, and the teeth become loose. The tongue is swollen, flabby, heavily coated and later ulcerated. The glands connected with the mouth and throat become inflamed and sensitive, the patient is languid and pale, complaining of aching pains in the limbs, worse at night. Later the systemic effects of the drug are noted—its action on vital organs, especially the liver and kidneys, on the blood and bones, so that the final picture is one of profound anemia, with degeneration of red blood corpuscles and violent inflammation, ulceration and destruction of tissue. But we are chiefly concerned at present with its action on the mucous membranes and its therapeutic value in throat conditions.

All of the preparations of mercury affect the throat, some more markedly than others, and it will be our endeavor to differentiate them so that in a given case we shall be able to choose that preparation which is most homœopathic to the

case. The main preparations of mercury are the *mercurius vivus* or metallic mercury; *merc. sol.*, or the soluble mercury of Hahnemann, which is a precipitated black oxide of mercury with nitric acid and ammonia; *mercurius dulcis* or calomel; *mercurius corrosivus*; the protoiodide and biniodide of mercury, and *mercurius cyanide*. The other preparations of mercury—*cinnabar* or *mercurius sulphide*, *mercurius sulphate*, and the red precipitate of mercury—are rarely used and will not be referred to in this paper, as I know of no special indication calling for their use in throat troubles.

In prescribing mercury we should remember the type of patient in whom the drug is most likely to be indicated. Remembering the physiological action of the drug, we find mercury especially called for in persons who are of a scrofulous habit, with marked tendency to involvement of the glands, and to anemic and degenerative conditions, reminding us of *calcareia*, *silicia* and also sulphur.

Coming, then, to the throat symptoms of the various preparations of mercury, and taking *mercurius vivus* as a type, we find well-marked indications for mercury in many conditions. In ordinary sore throat, pharyngitis, for example, mercury is indicated by the thickly coated, flabby tongue, the increased salivation, sore, scraped feeling in the throat, which looks red and inflamed and later threatens to ulcerate. The gums are apt to be tender and swollen and bleed easily, the saliva is profuse and offensive, perhaps metallic tasting, and aphthæ are liable to be formed. The throat may feel dry, yet constant swallowing is necessary on account of the increased saliva.

There is little difference between *mercurius vivus* and *mercurius sol.* here as elsewhere. In fact, the symptomatology of both is considered identical. Nevertheless, owing to the presence of nitric acid and ammonia in *merc. sol.*, it is probable that the latter preparation is called for in pharyngitis where there is more pain in swallowing, especially if associated with other mercury symptoms. There are sharp splinterlike pains, reminding one here of nitric acid and argent. nitric. and *hepar sulphur*. Moreover, I think the *merc. sol.* sore throat is more apt to be accompanied by digestive symptoms, especially qualmishness and tendency to diarrhea.

The throat picture of *mercurius corr.* is similar to *mercurius vivus*, only more extreme. The throat is intensely inflamed and swollen so that it burns and smarts, and the ten-

dency to ulceration is more pronounced. This is to be expected from the chlorine in the preparation. All the other mercury symptoms are present in an aggravated form. The salivation is more marked, the swallowing extremely painful, even threatening suffocation, the inflammation and ulceration of the gums more pronounced. Very painful swallowing—liquid returns through nose.

The iodides of mercury—the proto- and bin-iodide—are not so much indicated in ordinary pharyngitis as in tonsilitis or more severe throat conditions, such as diphtheria. But if called for, there is pretty sure to be greater involvement of the glands than in the *mercurius vivus* or *sol.* This is natural when we remember that iodine is a remedy that markedly affects the glands. As between the protoiodide and the bin-iodide of mercury, the protoiodide partakes more of the mercury characteristics and the biniodide more of the iodine characteristics, so we find either preparation indicated in pharyngitis where, besides the usual mercury symptoms, there is decided involvement of the glands, more marked in the bin-iodide. So we are pretty sure to feel painful swellings of the submaxillary glands and involvement of the tonsils. The protoiodide, as you know, seems to have an affinity for the right side and the biniodide for the left side of the throat.

But it is in tonsilitis rather than in pharyngitis that the iodides of mercury are chiefly valuable, and this because of the affinity iodine has for glandular tissue. So we find the iodides of mercury of particular value in tonsilitis, whether simple inflammatory, follicular, or suppurative. The other preparations of mercury may indeed be called for, but as a rule are not so efficacious in tonsilitis as the iodides. We may remark in passing, however, that we believe it good practice in the beginning of an acute tonsilitis, whether of the simple or suppurative type, to give appreciable doses of calomel—say 1/10 of a grain every half to one hour for ten doses—in order to insure good elimination and free action of the liver and bowels. Indeed, I know of no surer way to abort an attack of tonsilitis or quinsy than by thus giving a physiological dose of calomel in the beginning, associated if you please with five grains salol two or three times daily, and painting the throat freely with iodine and glycerine solution, or 10 per cent. argyrol. But that is another story.

To return to the homœopathic indications for mercury prep-

arations in tonsilitis, as between the protoiodide and biniodide, in the former the mercury symptoms predominate and in the latter the iodine symptoms, consequently there is likely to be more digestive disturbance with the protoiodide and more glandular swelling with the biniodide. The tongue is more heavily coated with thick, yellow, furry coating in protoiodide and the salivation and nausea are more pronounced. The protoiodide has an affinity here, as elsewhere, for the right side of the throat and the biniodide for the left. The follicles are more likely to be involved with the biniodide, while the inflammation of the protoiodide is more apt to tend to ulceration, not so pronounced as with merc. corr. There is more fever and headache in biniodide than protoiodide.

In quinsy, or suppurative tonsilitis, any of these mercury preparations may be indicated, according to symptoms, but care should be taken not to give mercury too soon, as it tends, not to prevent, but to favor suppuration. It is best given after belladonna or hepar have failed to abort the case, and when suppuration has taken place and you wish to hasten the evacuation of pus. The case tends to become chronic, with sluggish discharge and tendency to ulceration, reminding one of silica, which as a rule follows hepar better than mercury in such conditions.

In diphtheria the preparations of mercury most likely to be useful are the iodides and mercurius cyanide, and merc. corr. In the latter the throat is intensely inflamed and swollen, with great pain and burning on swallowing, with greatly swollen uvula, heavily coated tongue and tendency to ulceration of mucous membranes. The false membrane is not so pronounced or heavy, and fever not very high. With the protoiodide the membrane begins on the right side usually, with greater involvement of the glands, thick yellow coating of tongue, with red edges, much tenacious, ropy mucus in the mouth, and tendency to ulceration.

With the biniodide the membrane is more likely to begin on the left side, there is still greater involvement of the glands than with protoiodide, including tonsils, submaxillary and other lymphatic glands, involvement of the cellular tissue, less ropy saliva and less yellow coating of the tongue, but more fever.

In diphtheria especially, the cyanide of mercury is a valuable remedy. Being a combination of hydrocyanic acid and

mercury, we find it indicated in malignant and adynamic cases especially. As might be expected from the prussic acid in the combination, we find it useful where the constitutional symptoms are pronounced from the beginning. The patient is profoundly exhausted, the pulse is weak, quick and thready, the membrane is not so pronounced as symptoms would lead you to expect, but it tends soon to become dark and gangrenous. The fetor of the breath is extreme, the tongue coated brown or even blackish, and the tendency to nasal hemorrhage pronounced. The extremities are cold, the skin bluish and corpse-like. In a word, we have a picture of an extreme constitutional depression. In such cases mercurius cyanide may indeed prove a life saver, whether it be true diphtheria or a severe septic sore throat, possibly from a streptococcic infection, with the above symptoms.

By way of summary, remember mercury in throat conditions, especially in patients of scrofulous, anemic habit, with tendency to involvement of the glands, inflammation of mucous membranes, ulceration and degeneration of tissues in general.

Mercurius vivus or sol. in angina or pharyngitis with free salivation, offensive breath, heavily coated tongue, sore gums, aggravation at night, free perspiration and tendency to ulceration with (in merc. sol.) sticking pains on swallowing, nausea, and digestive disturbances.

Mercury Corr.—The same picture, with all symptoms exaggerated. Excessive swelling, extreme salivation and pain on swallowing, intense burning of mucous membranes, pronounced soreness of gums and tendency to ulceration.

Mercury Protoiodide—Right-sided pharyngitis or especially tonsillitis, with decided involvement of glands, including sublingual and submaxillary; thick, whitish yellow furred tongue, in addition to the regular mercury symptoms.

Mercury Biniiodide—Left-sided tonsillitis, with greater involvement of glands, more fever and headaches than in protoiodide, more pronounced constitutional symptoms, less local action.

Mercury Cyanide—In very severe cases, adynamic sore throat cases or diphtheria with extreme prostration out of all proportion to the local condition, with tendency to rapid degeneration of parts, excessive fetor, and picture of impending dissolution.

We have thus very briefly reviewed the throat disorders in

which mercury is most likely to be called for, and have tried to indicate the distinguishing symptoms that differentiate the various mercury preparations; and if this *resume* has called to your attention the keynotes of mercury in throat conditions and the distinguishing peculiarities of the various preparations, it has served its purpose.

THE END RESULTS OF NEPHRECTOMY.

BY

LEON T. ASHCRAFT, M.D., F.A.C.S., PHILADELPHIA, PA.

(Read before Bureau of Surgery, Gynecology and Obstetrics, American Institute of Homœopathy, Baltimore, Md., June 27, 1916.)

THE following is a report of the end results in nineteen cases in which nephrectomy was performed by me, the last case in this series dating back to November, 1915. In all but five of these cases the operation was performed for tuberculosis. This disease is a progressive one, and the post-mortem findings show that in many instances in which the surgeon does not remove the kidney, nature performs an autonephrectomy through stenosis of the vesical end of the ureter, obliteration of the lumen of the ureter itself, and destruction of the substance of the kidney. Moreover, it is a rare exception to find in medical literature cases of persons that have lived very long with kidney tuberculosis, owing to the fact that the sound kidney is attacked through the medium of the bladder, by either continuity or contiguity, the infection taking place as well by the hematogenous and lymphogenous routes.

In an article by Tousson on "The Future of the Nephrectomized,"* the author considers the pathology of the remaining kidney after the operation, and states that the compensatory hypertrophy that always takes place consists in a proliferation of the parenchymatous elements to a greater extent than the interstitial. A condition simulating the early stage of nephritis is set up, with corresponding changes in the urine, which is at first diminished in amount, but rapidly increases to above the normal quantity at the end of four or five days. This nephritis, which is due to an accumulation of toxic substances in the blood after the removal of one kidney, and before the other

*Am. Jour. of Urology, ix., 1913.

can get into a condition to carry them off, usually clears up; but this is not always the case. A nephrectomized person may, however, live for years without any aggravation of this condition, and may even be able to overcome various diseases. As a rule, such persons stand infections very well; and various surgical operations may be performed successfully on them, provided that care is taken to select such anesthetics and antiseptics as do not interfere with renal function.

Thirteen of these patients are living, twelve of whom may be considered as cured and the other improved. Of the six that have died, death was due to other causes in three.

The practical questions to be answered in each case are: Does the remaining kidney carry on the function usually performed by both organs? Is the patient comfortable? And would the symptoms and the general condition have been better without nephrectomy? In order to obtain information necessary to reach a correct conclusion regarding these points, I communicated with the attending physicians of these patients. I prepared a series of questions to be answered by the patients themselves, and other questions, including the result of various tests, to be answered by their physicians. A number of those living near enough I was able to see and examine personally, having the tests made under my own direction. From the data thus gathered I submit the following brief histories of the cases:

1. A man, thirty years of age, operated on for tuberculosis at the Women's Homœopathic Hospital eight months ago. The symptoms have been cured and he has gained eighteen pounds in weight. He feels and looks well, although he tires rather easily and has some shortness of breath. There are no involvements of any other organs or tissues in this patient. He secretes about seventy ounces of urine in the twenty-four hours. The only abnormal finding in the urine was some pus cells. It contained two per cent. of urea. The quantitative intravenous phenolsulphonephthalein test showed an excretion of sixty per cent. during the first hour. The patient has been at work steadily since January 10th.

2. A man of thirty-five years, a patient of Dr. C., on whom nephrectomy for tuberculosis was performed eighteen months ago. He gained seventeen pounds in weight in the four months following the operation, and held this weight up

to last March, when he contracted a Neisser infection. Prior to that time he passed urine only about four times a day, but since then he has voided about eleven times a day, and occasionally once at night. He has no pain on urination, and is able to work without trouble. The urine is cloudy, containing some pus and 1.9 per cent. of urea. The only test taken was the quantitative intravenous phenolsulphonephthalein, which showed an excretion of ninety per cent. during the first hour. He was not cystoscoped, on account of his recent infection. The frequency of urination may be due to posterior urethritis. There are no involvements of any other organs.

3. An unmarried woman of twenty-four years, who had been operated on at the Hahnemann Hospital for perinephritic abscess four months before a nephrectomy for calculous pyonephrosis was attempted. This woman was a patient of Dr. C., of Haddonfield, New Jersey. Myriads of small stones were taken from the incision, but it was impossible to remove the kidney. This was again attempted a month later, but neither the kidneys nor ureter could be removed, on account of strong adhesions. (The kidney itself was no larger than a good-sized egg.)

Since the last operation this patient has gained twenty-eight pounds in weight. She feels well and is able to work, though there still persists a fistula through which occasional small stones are discharged. There is no involvement of any other organ. The urine contains pus and a trace of albumin, with 1.7 per cent. of urea. The phenolsulphonephthalein test showed an excretion of forty per cent. during the first hour.

4. A girl of seventeen years, whose kidney was removed for tuberculosis eleven months ago. This patient was referred to me by Dr. P. Since the operation she has gained thirty-seven pounds in weight, but she still urinates frequently, and the urine is cloudy. T. B. are absent. Dr. P. assures me that her general condition is perfect, but she refuses to be cystoscoped or to have any inquiry made into the function of her remaining kidney.

5. A married woman of thirty years (also referred to me by Dr. C.), on whom a nephrectomy was performed a year ago on account of tuberculosis, probably due to the trauma sustained two or three years before, when a nephropexy was

done, with resulting adhesions. She is now in very good general condition and has gained twelve pounds in weight. She voids urine three times a day and not at all during the night. The urine contains 1.9 per cent. of urea, and she passes twenty-six ounces in the twenty-four hours. The phenolsulphonephthalein excretion during the first hour is forty per cent., and the cystoscopic examination and other urinary tests show normal conditions.

6. A married woman, fifty-six years of age, referred to me by Dr. E. and operated on for pyonephrosis at the Women's Homœopathic Hospital in November, 1913. With the exception of some nervousness, her condition is now excellent in all respects. She has gained forty pounds in weight and is free from urinary distress. The quantitative intravenous phenolsulphonephthalein test shows an excretion of thirty-five per cent. in the first hour.

7. A married woman, about forty years of age, referred to me by Dr. E. and nephrectomized for tuberculosis six months ago, having previously undergone an operation for appendicitis and general visceroptosis. She left the hospital better in every way, the only trouble that she has had since being frequent and painful urination, due to a spot of ulceration near the vesical sphincter. Bladder gymnastics, with the use of bichloride of mercury and glaiacol carbonate, have practically cured this condition, and her recovery will probably be perfect, as there are no demonstrable lesions of tuberculosis in any of the other organs or tissues. She can now hold nine ounces of urine for one hour without distress. The temperature and pulse are normal.

8. A married woman, thirty-five years of age, a patient of Dr. B., of Harrisburg, operated on six months ago for tuberculosis of the kidney following a laparotomy. She is now perfectly well and has gained twelve pounds in weight. With the exception of the fact that the urine contains some calcium oxalate crystals and pus, the various tests show absolutely normal conditions. The urine contains 1.7 per cent. of urea. She voids only four or five times a day and not at all at night.

9. A married woman, twenty-two years of age, referred to me by Dr. H. and nephrectomized more than two years

and a half ago, likewise for tuberculosis following a laparotomy, which had been performed one month before. She has gained fifteen pounds or more in weight and is able to conduct a business. There is slight frequency of urination in her case, and she voids about two quarts in the twenty-four hours, containing 2.1 per cent. of urea. A cystoscopic examination showed trigonitis. The phenolsulphonephthalein excretion is ninety per cent. during the first hour.

10. An unmarried woman of thirty-two years, operated on at the Women's Homœopathic Hospital eleven months ago, the kidney being removed for calculous pyonephrosis. She does not show any surgical signs, and has gained in weight, but she still complains of frequency of urination and of burning sensation during the act.

11. An unmarried woman, a patient of Dr. H., operated on seven years ago for hypernephroma. She is now seventy-five years of age, although she looks ten years younger and is very active. Two years ago her remaining kidney pained her, and was discovered to have become loosened and dropped. She is now wearing a belt with a kidney pad and is having no further trouble. She is in wonderful condition and absolutely comfortable.

12. A married woman of thirty years, a patient of Dr. S., operated on for tuberculosis three years ago at the Women's Southern Homœopathic Hospital. She is now in very good condition, is free from symptoms, has gained in weight and is conducting a bakery in West Philadelphia.

13. A married woman of twenty-nine years, sent to me by Dr. H., of Annville, Pa., and operated on for tuberculosis of the kidney at the Hahnemann Hospital, May 1, 1914. While she is in excellent condition, has gained thirty pounds in weight and is able to look after the affairs of her household, there is still frequency of urination, although her urinary symptoms have improved. Her incision did not finally heal until eighteen months after the operation, and a hernia now occupies the scar. This, however, owing to corset support, is symptomless. Cystoscopy reveals a few small ulcerated areas, which appear rather inactive. Seventy-five per cent. of the cystitis has disappeared. Bacterial tests of the urine for tu-

bercle bacilli were negative on three successive occasions. The other tests showed normal conditions.

Three men and three women among this series of patients died, the histories of these being as follows:

1. An unmarried woman of thirty-eight years, operated on for septic infarct. Death in this case was due to acute uremic poisoning, secondary to an attack of grippe, which occurred one year after the operation. The patient had been perfectly well before contracting influenza, and had gained in weight.

2. A man of twenty-one years, who was operated on for tuberculosis. This patient committed suicide on account of unrequited affection three months after the operation. At that time he was quite well, having gained in weight, and all the symptoms of tuberculosis having disappeared.

3. A woman of thirty-eight years, nephrectomized six months ago for tuberculosis. Following the operation it was necessary to resort to surgical interference for closure of a fistula in the loin. The patient appeared improved for a time, but her case soon began to run a septic course. In addition to the kidney lesion she had bladder tuberculosis. About two months ago a vesico-vaginal fistula was made, with resulting improvement of her bladder symptoms. She, however, developed pneumonia in the latter part of May, from which she died.

4. A man of thirty years, operated on for renal and genital tuberculosis. He died of sepsis twenty-two days after the operation.

5. A man of forty, nephrectomized for tuberculosis. He died of pulmonary tuberculosis one year after the operation, there having been no improvement in his condition.

6. A girl of nineteen years, case of Dr. R., operated on for tuberculosis of the kidney. She died of acute miliary tuberculosis of the lung nine months after leaving the hospital.

SUMMARY OF THOSE NOT LIVING

No.	Sex	Age	Diagnosis	Time from operation to death	Result of operation	Cause of death
1.	F	38	Septic infarct.	1 yr.	Cure Gain in wt.	Uraemia after grippe
2.	M	21	Tuberculosis	3 mos.	Cure Gain in wt.	Suicide
3.	F	38	Tuberculosis	6 mos.	Temporary improvement	Pneumonia
4.	M	30	Tuberculosis	22 days		Sepsis
5.	M	40	Tuberculosis	1 yr.	No improvement	Pulmonary tuberculosis
6.	F	19	Tuberculosis	9 mos.		Acute miliary tuberculosis of lung

TABULATION

	Total	Living	Cured	Improved	Unimproved	Dead
Females	14	11	11°	2†	0	3‡
Males	5	2	3*	0	2	3‡
Patients	19	13	14	2	2	6

°One of these women was cured and afterwards died from another cause.

*One of these men was cured and afterwards died from another cause.

†One of these women was improved and afterwards died.

‡These include one woman cured and one improved.

§These include one man cured.

TIME AFTER OPERATION TO THE PRESENT OR PATIENT'S DEATH

	Females	Males	Both
7 years	1	—	1
3 "	1	—	1
2½ "	2	—	2
2 "	2	—	2
1½ "	—	1	1
1 year	4	1	5
9 months	1	—	1
8 "	—	1	1
7 "	1	—	1
6 "	2	—	2
3 "	—	1	1
22 days	—	1	1
Total	14	5	19

AGES AT TIME OF OPERATION

	Females	Males	Both
Over 60 years	1	—	1
51 to 60 years, inc.	1	—	1
41 to 50 "	—	—	0
31 to 40 "	5	2	7
21 to 30 "	5	3	8
20 years or below	2	—	2
Total	14	5	19

DIAGNOSES

	Females	Males	Both
Tuberculosis	9	5	14
Calculus pyonephrosis	2	—	2
Pyonephrosis	1	—	1
Hypernephroma	1	—	1
Septic Infarct	1	—	1
Total	14	5	19

SUMMARY OF HISTORY AND PRESENT CONDITION OF THE LIVING PATIENTS

No.	Sex	Age Yrs.	Diagnosis	Time since operation	Result of operation	Other organs involved	Cystoscopy	Quantitative Intra-venous Phthalin Test, First Hour	Urine	Urea	Gain in Weight	Present Condition. Symptoms
1	M	30	Tuberculosis	8 mos.	Cure	None		60 %	A few pus cells, 40 oz.	1.6 %	18 lbs.	Feels well. Easily fatig'd Dyspnea
2	M	35	"	1 ½ yrs.	"	"		40 %	Cl'dy pus & undien bacteria	1.9 %	17 lbs.	Feels well Frequency in day time
3	F	24	Calculus pyonephrosis	2 yrs.	"	Bladder	Trigonitis	40 %	Pus & trace of albumin 60 oz.	1.7 %	28 lbs.	Feels well
4	F	17	Tuberculosis	1 yr.	Improvement	"					37 lbs.	Frequency Feels well
5	F	30	"	1 yr.	Cure	None		40 %	16 oz.	1.9 %	12 lbs.	No symptoms Much better
6	F	56	Pyonephrosis	2 ½ yrs.	"	"		35 %		1.2 %	40 lbs.	Nervousness
7	F	40	Tuberculosis	6 mos.	"	"						Frequency
8	F	32	"	7 mos.	"	"			Cal. oxalate & pus	1.7 %	12 lbs.	Feels well
9	F	22	"	2 ½ yrs.	"	Bladder	Trigonitis	90 %		2.1 %	15 lbs.	
10	F	32	Calculus pyonephrosis	1 yr.	"	None					Gain	Frequency Burning
11	F	65	Hypernephroma	7 yrs.	"	"						Very good condition no symptoms active
12	F	30	Tuberculosis	3 yrs.	"	"					Gain	No symptoms
13	F	29	"	2 yrs.	"	Bladder		60 %	Pus	1.5 %	30 lbs.	Frequency Condition very good

SOME COMMON ERRORS IN CIRCULATORY THERAPEUTICS.

BY

CLARENCE BARTLETT, M.D., PHILADELPHIA.

(Read before the Homœopathic Medical Society of the Lehigh Valley, June 15, 1916.)

BETTER than getting out of a scrape is not getting into one. This trite remark would seem at first sight not to have any bearing on the subject matter of this address. It is simply this: Too many times indeed do we, on noticing circulatory failure, jump to the conclusion that the heart is primarily at fault, and prescribe accordingly, and by so doing do more harm than good. Let me illustrate: Several years ago I was called to see a case of what the attending physician called heart failure in a young woman of twenty-eight years. The history as given to him was that she had taken a long walk in the forenoon, and later in the day complained of palpitation, weakness and shortness of breath to such an extent that she was exhausted. Circulatory failure there certainly was; but the woman was blanched, strongly suggestive of severe internal hemorrhage. Physical examination disclosed a right-sided pelvic mass. Operation performed the following day confirmed the diagnosis of extra-uterine pregnancy with rupture and hemorrhage. It was not until the patient had made a complete recovery that she recalled a sudden, most agonizing pain the night before the symptoms appeared, and the occurrence of which she had most strenuously denied to both myself and her family physician. Had this case been treated by cardiac stimulation, the hemorrhage would most certainly have been aggravated thereby, for syncope is nature's method of stopping bleeding. While, then, there was circulatory failure, it was due to loss of blood and not to deficient cardiac action, and did not call for cardiac therapeutics.

In every case of circulatory failure, then, the practice should be to determine its cause, and not to start at the first evidence of unduly rapid pulse to the administration of heart stimulants. Before resorting to cardiac remedies we should first determine if heart failure is present or imminent.

Taking for first consideration an acute disease in the course of which the condition of the heart is much studied, namely, typhoid fever, it is seldom indeed, if my personal experience

is a guide, that that organ is at fault. Fatalities in typhoid are due, with few exceptions, to toxemia, hemorrhage or perforation. Of course these conditions exhibit their effect on the pulse and heart sounds. The treatment of these cases is that of the primary condition, and not the administration of strychnia, alcohol, etc. The latter, it is true, is excellent in some cases, not, however, because of its properties as a stimulant, but because of its beneficial influence in the typhoid toxemia. In typhoid fever probably more than in any other acute disease, cardiac failure is diagnosed when not present.

In pneumonia attention to the heart is an important therapeutic factor. That organ is forced to work against an unnatural load, and not infrequently gives out in consequence. I will not refer to the numerous irrational methods of stimulation that have been advised by writers, or of even worse measures that have been recommended by this or that physician, but simply mention three measures that I have found very useful. The best general stimulant in the failing heart of pneumonia is camphor, which should be given in much larger doses than ordinarily prescribed—namely, 10 c.c. of the 20 per cent. solution in olive oil, repeated twice daily. By this method of administration a constant reservoir of camphor is maintained in the body. It is much superior to the old method of 30-minim doses of a 10 per cent. solution given every five minutes. Unlike the old method, it does not produce abscesses. I believe it to be harmless, and would say use it if in doubt.

Another means of combating the failing heart in pneumonia is bleeding. This I have used but twice. Once it saved a life, and the other time gave great relief. The indications for this measure are unequivocal. The pulse at the wrist is almost imperceptible, and auscultation over the heart tells us that the heart is beating tumultuously. The organ is working strenuously against the unnatural damming up of blood in the venous system and the pulmonary circuit. A venesection of 8 to 12 ounces relieves part of the load, and the heart is able to do its work.

Lastly, musk is to be considered. Its indications in pneumonia are those which we all have heard recounted as belonging to *carbo veg.* It is to be given by the rectum in one dose of 15 grains suspended in 4 ounces of mucilage acacia.

The remaining stimulants for pneumonia are *cafein* and

alcohol, the latter always in patients who have been steady drinkers.

It is too common a practice to administer the cardiac tonics when the "pick-me-ups" or analeptics should be administered. These drugs act as nearly on the minute as can any medicines. The ordinary everyday aromatic spirits of ammonia used in almost every household belongs to this class of remedies. Cases of the so-called "acute indigestion," which but spells cardiac failure and is attended by the great accumulation of flatus in the stomach, should be treated by one or two doses of the spiritus etheris compositus, commonly known as Hoffmann's anodyne. Following its administration gas is expelled in large quantities, and the patient obtains quick relief not afforded by any other measure. It is not a remedy for regular repetition. The dose is 15 minims hypodermically or 30 minims by the mouth.

It is a mistake to look upon morphia as a cardiac depressant. Really it has no special cardiac action, nevertheless it is invaluable in aggravated cases of heart disease. It acts physiologically by giving the patient mental and physical rest. It is an error to resort to various synthetic sedatives for resting the heart patient. In the first place, I have seldom seen any of them do any good; and they are certainly less efficient than morphia in producing the result, and I candidly believe they do harm. Morphia is, of course, a bad palliative in cases of advanced renal disease, but even here it may be required when cardiac breakdown is evident.

It is an error to believe that digitalis should not be administered in patients with high blood pressure or with arteriosclerosis. Physicians fear, and I have been among the number, that the increased blood pressure produced by the drug may cause an intracranial hemorrhage. Of course if the doses administered are as large as those employed for the study of drug action, the danger is not to be doubted; but on the other hand, the doses ordinarily given by most of us are utterly incapable of working any such damage. It is therefore unnecessary to combine digitalis with strophanthus and glonoin to avoid this danger. It is an error to administer digitalis regularly to ambulant patients. If a heart is sufficiently damaged to require the use of a cardiac tonic, it is bad enough to demand that the patient be placed in bed and at absolute rest. Undoubtedly the digitalis gives the patient considerable relief.

but by the very reason of that amelioration he is led to indulge in activities of which the heart is incapable under ordinary circumstances. We are all guilty of this error to a greater or less extent. Nevertheless we are not alone in this practice. Dr. James Mackenzie, than whom no modern clinician has done more for the study of irregularities of the cardiac rhythm, has no hesitation whatever in first determining the dose that produces the most satisfactory action, and then permits his patient to leave the hospital, with instruction to continue his medication.

I have often thought that the common mixing of digitalis, strophanthus and glonoin was irrational. It reminds me very much of the old darkey's prescription for rheumatism—namely, ground glass, gum arabic and alum, the ground glass cutting the pain, the alum drawing the parts together and the gum arabic "soddering" them. Digitalis is supposed to act upon the vascular system one way, strophanthus another, while glonoin reduces any increased blood pressure these drugs may excite. Digitalis is a drug that maintains its action for several days, and the same is true of strophanthus, while glonoin acts quickly and its effects pass off within an hour or so. It strikes me as a nice sort of a mixture to have received the sanction of intelligent physicians. It is very generally used at the present day, though not with its former frequency.

It is an error to believe that digitalis will control all cases of auricular fibrillation. For many years it has been known that the special sphere of this remedy was in mitral regurgitation with failing compensation, and in irregular irregularities of the heart beat. Of late years Mackenzie and others have determined positively that such irregularities are due to auricular fibrillation. He and his followers have such implicit faith in the action of the remedy that they consider that its success is merely the matter of determining the dose necessary to secure the end. "It must do it; it cannot help doing it," they say. As a matter of fact, digitalis does control a very large proportion of cases of auricular fibrillation; but it sometimes fails, and for a good reason. Auricular fibrillation is an end result of more than one pathological condition, and all cases are not of identical origin. Hence the inaccuracy of forcing the remedy to suit the disease. Judging from what we know of digitalis, it is not at all improbable that it may do harm in some cases while producing outward signs of improvement.

As is well known, this drug is capable of producing almost any type of arrhythmia, oftentimes heart block. One writer even takes the ground that its beneficial influences in auricular fibrillation are brought about by the production of a mild extra resistance in the auriculo-ventricular bundle, thus preventing the transmission of feeble auricular contractions through to the ventricles. That it does do this sometimes we must admit. If its good influence is the result of such action, I should take it to be an undesirable remedy. The truth respecting digitalis and auricular fibrillation I believe to be that it is unquestionably the most frequently indicated remedy in this condition; also that it produces a most striking therapeutic action in most cases; that it signally fails sometimes, and some patients even die despite its administration; that it is not always necessary to give even moderately large doses, and that after the irregularity has been controlled the condition may be kept in abeyance by minimum dosage over large periods of time.

It is an error to assume that the dose of digitalis is a fixed one. Some patients and some conditions require large doses, while others are better treated by the opposite. Cases of auricular fibrillation probably need and tolerate the largest doses of the drug; but even with them there are many times when we find that we get the best results with moderate dosage. The rule formulated by Mackenzie and enthusiastically advocated by his admirers is to start with an average dose and increase the quantity until results are obtained. Subsequent dosage is to be governed by results and conditions. In mitral regurgitation with broken compensation the indications are practically the same as in auricular fibrillation. Digitalis has not much of a reputation in mitral stenosis—too little, in fact. Still it is capable of doing considerable, but the dosage must always be moderate, and in many cases small.

It is an error to fear cumulative action from digitalis. In the olden days—and I mean half a century ago, when digitalis preparations might be unusually good or unusually bad, when doses were large and observers were none too logical in their interpretation of facts—there was good reason for such fears. But I believe that, with modern dosage regulated to the case and the progress of the symptoms, there should be no fear.

It is an error to prescribe digitalis for no other reason than the heart exhibiting a lesion. If the heart is functioning well, and there are no symptoms indicating inadequacy, there is no

ground for a prescription—either of digitalis or other remedies.

Just as it is an error to assume a fixed and unvarying dosage for digitalis, so is it an error to follow fixed and unvarying rules for continued administration of the drug. As previously stated, patients without symptoms require no medicines. When symptoms are present, it oftentimes requires nice judgment as to the continuation of a remedy. So far as digitalis is concerned, there is a disposition on the part of physicians to discontinue it prematurely because of fear of cumulative action. Cases of fibrillation are often greatly benefited by permanent systematic administration, even though continued over a term of years. I have in mind two illustrative cases, one in which the fibrillation was endocarditic and the other in which it was sclerotic in origin. These patients continued their use of digitalis for periods of over ten years without evidence of harm or discomfort; in fact, if they dismissed the drug for two weeks they felt the difference. One of these patients took 10 minims three times weekly, and the other 15 minims once or twice a week. The endocarditic patient died of cerebral embolism; the sclerotic, of complete cardiac breakdown at the age of eighty years. I always looked upon the clinical results in these two cases with particular pride, notwithstanding the auricular fibrillation was never controlled to the extent of bringing the pulse deficit down to zero.

I believe it to be an error to assume that proprietary preparations of digitalis are superior to those that are standardized and officinal. Herein I find many physicians beg to differ with me. Hardly a big pharmaceutical house in the country that does not put out more than one of these specialties; and prior to the war the country was flooded with as many others of foreign manufacture. Of these we know nothing excepting the facts (?) furnished by their makers.

It is also an error to prescribe alkaloids of digitalis, for we know practically nothing of their action or of their composition. The digitalin of one concern is not the digitalin of another. When there is some understanding as to the nature of the different preparations bearing this name—and that time is drawing near—then we may have recourse to them.

It is an error to give unlimited supplies of digitalis—or any other remedy, for that matter—to patients that they may continue their own medication according to their ignorance or

folly. Certainly I should not be obliged to say this. Perhaps it is not so true of digitalis as it is of other medicines, especially strychnia. Yesterday I saw a woman who remarked that she had a weak heart (which was not the case) and that she kept herself supplied with strychnia. Playing bridge at the club, one of my friends brought a bottle of strychnia out of his pocket, remarking that he was getting excited and had better take a dose of strychnia; which he did, out of an original package for a hundred pills.

It is an error to abstain from using digitalis because of an alleged ability on the part of the drug to produce sudden death. Heart diseases produce sudden death, and when such occurs during digitalis administration, there has been too strong a disposition to lay the result to the remedy. There are some cardiac lesions in which digitalis is useless, *e. g.*, aortic regurgitation, and this valvular anomaly more than any other is of frequent sudden fatality. It is even probable that digitalis does harm in these cases, though I have never been able to say anything worse than its uselessness. It is simply not indicated—then why abuse it? I would agree with the popular fear concerning digitalis in cases in which digitalis is given in full or approximately full doses while the patient is walking around or attending to his regular duties. In such cases the heart is doing its work under a stimulus, and not infrequently is forced against its capacity. So why should it not give way suddenly? It is a case of whipping an exhausted horse to speed until he drops dead in his tracks.

Perhaps the most commonly observed error in circulatory therapeutics is the maladministration of the various vasodilator drugs, as glonoin, nitrite of amyl, etc. These drugs are not heart stimulants in any sense of the word; hence to prescribe them in the face of syncope or low vascular pressure is the acme of therapeutic absurdity. They should be given only in the face of high blood pressure, and then with some common sense. It is a mistake to endeavor to force blood pressure down by this class of drugs. It is all right to moderate the vascular tension to a certain point, but just so soon as we make efforts to bring it down by artificial means to the normal level, our patient experiences discomforts. It is a mistake to attribute results to glonoin tablets, because there is a big lot of stale and inefficient preparations in the market.

I must apologize for the iconoclastic character of this paper.

It was my desire to review certain errors in circulatory therapeutics, but I may be pardoned if you will but recall that a good way to success is the avoidance of mistakes. I would have liked to have said something in a constructive way, but in a paper designed to consume fifteen minutes in its presentation this would have been impossible.

EXAMINATION QUESTIONS.

Bureau of Medical Examination and Licensure of Pennsylvania, July, 1916.

MEDICAL AND SURGICAL.

FIRST SESSION.

Tuesday, July 11, 1916, 2 P. M.

Physiology—Pathology—Bacteriology.

1. GIVE briefly the physiology of the skin. Outline a pathological sequence by which an abrasion of the skin may cause death.
2. Give etiology, pathology and possible complications of otitis media.
3. What distinctive feature in the laboratory investigation identifies each of the following: gonococci? streptococci? tubercle bacilli? Klebs-Löffler bacilli? typhoid bacilli?
4. What alterations in function occur as a result of glaucoma? As a result of gastric ulcer?
5. State briefly the pathological condition in each: (a) hemophilia, (b) arterio-sclerosis, (c) aneurism, (d) thrombus, (e) varicose veins.
6. Outline the laboratory tests which should precede any exploratory laparotomy.
7. Enumerate the things sought for in a complete urinalysis. Give the urinary findings which diagnosticate each of two diseases.
8. Give a case of progressive debility, occurring without fever in the prime of life, outline the laboratory tests which might establish the diagnosis.
9. What laboratory proceedings would aid you in determin-

ing the etiology and prognosis of synovitis? cerebrospinal meningitis? pharyngitis? conjunctivitis?

10. What is the pathologico-physiologic significance: (a) of low and (b) of high blood pressure? (c) of hyper- and (d) of hypo-thyroidism?

MEDICAL AND SURGICAL.

SECOND SESSION.

Wednesday, July 12, 1916, 9 A. M.

Symptomatology—Diagnosis—Toxicology—Medical Jurisprudence.

1. Enumerate the conditions which might be indicated by the presence of blood in the feces. How would you determine the possible source?

2. Given a persistent cough, outline the conditions which may produce the same. Differentiate any two.

3. Enumerate the conditions which may be indicated by the presence of edema in the legs. Explain how this is brought about.

4. State the physical signs, symptoms and laboratory tests of (a) incipient pulmonary tuberculosis, (b) the advanced stages of pulmonary tuberculosis.

5. Enumerate the symptoms of gonorrheal arthritis. Name two other diseases that simulate it and differentiate them.

6. (a) Enumerate the symptoms of follicular tonsilitis. (b) Differentiate the throat symptoms of scarlet fever and diphtheria from it. (c) Name three sequelæ which may follow it.

7. Enumerate the symptoms of endocarditis. Differentiate them from typhoid fever and malarial fever.

8. Enumerate the symptoms of aconite poisoning and contrast it by the symptoms from opium poisoning.

9. What antidotal treatment would you employ in carbolic acid, toadstool, corrosive sublimate, aconite and opium poisoning?

10. Describe in detail the appearance of a child born alive

at full term; of one born dead at full term; and of one having died previous to birth.

MEDICAL AND SURGICAL.

THIRD SESSION.

Wednesday, July 12, 1916, 2 P. M.

Obstetrics and Gynecology—Physiological Chemistry.

1. Outline the treatment of (a) ophthalmia neonatorum, (b) vulvitis in children up to five years of age. Discuss both these lesions as to (a) origin, (b) results.
2. Discuss early carcinoma of the (a) female breast, (b) cervix uteri, and (c) fundus uteri, as to (a) diagnosis, (b) metastasis, (c) treatment.
3. Given a woman three months or less normally pregnant, discuss the case from the viewpoint of (a) diagnosis, (b) differentiation from ectopic gestation.
4. State in detail how you would suspect an oncoming attack of eclampsia. Discuss the management of a pregnant woman with the purpose of preventing such an attack.
5. On what indications would you resort to version? Outline the technic.
6. In cases of labor discuss the use of (a) anesthetics (general and local), (b) ergot, (c) the forceps, (d) the vaginal douche, (e) local examinations, (f) pituitin.
7. Discuss the diagnosis of (a) placenta previa, (b) premature detachment of a normally situated placenta, (c) ruptured uterus.
8. How would a red blood corpuscle be influenced in the presence of (a) water, (b) 0.9 per cent. sodium chloride solution, (c) 10 per cent. sodium chloride solution? (d) Explain the observed phenomena.
9. In a patient with diabetes what urinary changes are common besides the presence of sugar? Discuss their significance.
10. Outline the most important differences between human milk and cow's milk.

MEDICAL AND SURGICAL.

FOURTH SESSION.

Thursday, July 13, 1916, 9 A. M.

Anatomy—Surgery.

1. Give a classification of burns. Outline the treatment appropriate to each class. State the immediate and the remote dangers from burns.

2. Discuss prostatic hypertrophy, stating varieties, sequelæ, symptoms and treatment. (Omit details of technic.) •

3. Discuss stricture of the urethra, stating the causes, varieties, and methods of treatment. (In outlining the various methods of treatment, omit details of technic but state the reasons for the employment of each, and the type of stricture to which the procedure recommended is especially applicable.)

4. In performing an operation for the radical cure of indirect inguinal hernia in the male, give the surgical anatomy of the parts. State in order the structures incised and separated, and the structures sutured. (Omit technic.)

5. Outline the methods of examination that you would employ to determine whether there existed a luxation or a fracture at the hip joint. State all the anatomical landmarks and measurements to be considered.

6. In osteomyelitis, what are the more usual causes? What are the early symptoms of this condition? What is the surgical treatment?

7. Enumerate (a) the symptoms and (b) the complications that may ensue from the presence of gall stones.

8. Describe the technic of intubation of the larynx.

9. If you were called to attend a person having an indefinite history of severe injury to the head, state the special conditions and symptoms that you would look for. What tests should be made? Enumerate symptoms and conditions that would warrant exploration.

10. What symptoms and conditions would warrant the removal of the tonsils? Outline the technic of tonsilectomy.

MEDICAL AND SURGICAL.

FIFTH SESSION.

Thursday, July 13, 1916, 2 P. M.

Practice—Materia Medica—Therapeutics—Hygiene.

1. What are the main therapeutic indications for the use of ergot? Name three pathological conditions in which it might be administered, giving the dosage.
2. Outline the general management of a case of acute pleurisy without effusion. What medicinal treatment would you advise?
3. What hygienic and sanitary precautions would you institute tending to prevent the usual complications of whooping cough? Outline the treatment of such a case.
4. What special articles of diet would you prohibit in a case of chronic interstitial nephritis? What medicinal agents are (a) indicated, (b) contraindicated in that disease?
5. Describe the treatment of scurvy—the kind occurring in adults as well as the infantile variety. What diet would you recommend in each variety?
6. Give a general outline of the rules of artificial infant-feeding, omitting proprietary foods.
7. Name three diseases in which belladonna or its active principle might be administered. Give dose of preparation used, and describe the symptoms that would indicate active physiological effects.
8. Name three diseases for the cure of which the modern serum treatment may be applied. Give an explanation of the action of the remedy in each case.
9. Outline briefly the treatment of (a) scabies, of (b) spasmodic croup and of (c) facial neuralgia. Give your reason for the employment of each remedy used.
10. Outline the ill effects that may be produced as the result of defective sanitation in school rooms.

DRUGLESS THERAPY.

FIRST SESSION.

Tuesday, July 11, 1916, 2 P. M.

Physiology—Anatomy.

1. Describe the liver and state what part the bile plays in the digestion of food.
2. Outline the position of the normal human stomach, and state its digestive functions.
3. Describe in detail the structures of long bones.
4. Give a general outline of the functions of the normal spinal cord.
5. Name and locate the ductless glands. Describe the more important functions attributed to any two glands selected.
6. Outline the distribution of the muscles on the posterior portions of trunk.
7. State the vascular and nerve supply to the kidneys.
8. What nerves supply sensation to the anterior abdominal walls?
9. Give a general outline of the mechanism of vision.
10. How is bodily heat produced? How regulated?

DRUGLESS THERAPY.

SECOND SESSION.

Wednesday, July 12, 1916, 9 A. M.

Symptomatology—Diagnosis—Hygiene—Practice.

1. How would you determine the existence of diabetes? Give a general outline of the diet you would recommend and the treatment that you would employ in a case of diabetes mellitus.
2. Describe the dietetic, hygienic and any other treatment you would apply in a case of hip joint disease.
3. Explain the theory upon which you would base your management of a case of heart disease with dropsical symptoms.

4. State the diagnosis of neuritis.
5. Outline the diagnosis and treatment of hemorrhoids.
6. Outline the management of a case of chronic dyspepsia with constipation.
7. Outline the treatment of infantile paralysis.
8. Give the treatment of hemorrhage of the brain; also of hemorrhage of the lungs.
9. Enumerate the more usual symptoms that occur in blood poisoning.
10. What methods would you employ to determine whether an injury was a sprain or a fracture? Outline the general principles in the treatment of each.

DRUGLESS THERAPY.

THIRD SESSION.

Wednesday, July 12, 1916, 2 P. M.

Pathology.

1. Describe the pathological process in tuberculosis of the knee joint.
2. Name five bacteria, telling what tissue or organ each is apt to affect.
3. Outline the things sought for in the examination of urine.
4. Give causes for persistent vomiting.
5. Describe some leading conditions producing spinal curvature.
6. Trace the course of transmission of pain to the brain from an injured toe.
7. Explain (a) the absence of pain in paralysis, and (b) the presence of pain in neuritis.
8. Describe the conditions which may cause swelling of the lower extremities.
9. What organ is affected chiefly in (a) typhoid fever? (b) locomotor ataxia? (c) angina pectoris? (d) diabetes? (e) apoplexy?
10. How would you recognize syphilis?

CHIROPODY.

FIRST SESSION.

Tuesday, July 11, 1916, 2 P. M.

Physiology—Anatomy.

1. Give a general outline of the physiology of locomotion.
2. Name the more important muscles of the lower extremity.
3. What changes occur in the relation of the bones of the foot in a fallen arch?
4. Name and describe in detail the structures of the joint in which bunion most usually occurs.
5. Name some of the glands of the body and state the name of the fluid secreted by each.
6. What are the general divisions of the digestive tract?
7. What changes occur in the blood in its passage through the lungs?
8. What are the general divisions of the nervous system?
9. Describe the skin and its functions.
10. Name the more usual bacteria found in infections of the skin. Describe the structure of bone.

CHIROPODY.

SECOND SESSION.

Wednesday, July 12, 1916, 9 A. M.

Practice—Hygiene—Pathology.

1. Enumerate the conditions that may result from the wearing of improperly fitting shoes.
2. Describe in detail two methods for the removal of a heloma, giving the pre- and post-operative treatment.
3. The presence of what symptoms or conditions in the foot or in the patient would lead you to regard the case as one that should not be treated by you at that time?
4. Describe the pathological changes occurring in bursitis.
5. State the antiseptic agents you have been instructed to

employ and the dilution of each. State the methods of their employment.

6. How would you determine the existence of a fallen arch? What methods would you employ or recommend for its correction?

7. State (a) conditions in which you might employ a caustic. (b) What caustic agents would you use? (c) What dangers might result from the improper use of caustics?

8. If a foot was infected, what constitutional symptoms might it cause?

9. Describe your treatment of hammer toe.

10. Give the names for some of the forms of abnormal sweating of the feet. Outline the form of treatment of any one form selected.

MASSAGE AND ALLIED BRANCHES.

FIRST SESSION.

Wednesday, July 12, 1916, 2 P. M.

Anatomy—Physiology.

1. What muscles are concerned in respiration?
2. What changes occur in the blood in its passage through the lungs?
3. What do you understand by elimination? State the principal organs involved.
4. Describe the structure of the skin and its functions.
5. Give a general outline of the divisions of the nervous system.
6. Name the structures through which the food passes en route from the mouth to the rectum.
7. Name the muscles in the calf of the leg and state their functions.
8. What do you understand by metabolism?
9. Give a general outline of the circulation of the blood.
10. Give a general outline of the distribution of muscles on the anterior abdominal wall.

MASSAGE AND ALLIED BRANCHES.

SECOND SESSION.

Thursday, July 13, 1916, 9 A. M.

Practice—Hygiene—Pathology.

1. Give a list of mechanical devices which you have been trained to use in treatments. Give four forms of massage indicating the purpose of each.
2. Given a swollen wrist: (a) what pathological conditions may be present? (b) How treat each?
3. Under what conditions may abdominal massage be (a) beneficial? (b) harmful?
4. In paralysis of a limb (a) what pathological conditions may be present? (b) how would you treat the limb?
5. In your effort to aid the circulation and respiration, outline your manipulations and explain the purpose of each.
6. Outline your (a) early and (b) your late treatment of a sprained joint.
7. Name some precautions pertaining to the skin which should be observed in manual and mechanical treatments.
8. Outline your treatment for (a) insomnia, (b) spinal curvature.
9. Give some hygienic precautions which should be observed in a general office practice.
10. State under what conditions you would use (a) hot, (b) cold applications; give reasons why.

HOW MANY CENTENARIANS THERE ARE.—Serbia is especially the country of centenarians. One man in every 2260 has seen 100 years, and, in all, Serbia boasts 575 men of 100 years or over. Ireland ranks next, with one centenarian in every 8130 of the population, or 578 in all. Out of every 43,000 Spaniards one is a centenarian. Norway numbers twenty-three, or one in about 96,000. England, Scotland, and Wales rank next with 182, or one in about 177,000. France has 213 centenarians, or one in 180,750. Sweden ranks seventh with twenty only, or one in 250,000. Germany has seventy-eight, or one in 702,000. Denmark only claims two, or less than one to 1,000,000 of its population; and Switzerland, with all its reputed healthiness, seems not to possess a single centenarian.—*Exchange.*

EDITORIAL

THE ANNUAL MEETING OF THE STATE SOCIETY.

As most of our readers are probably aware, the Homœopathic Medical Society of the State of Pennsylvania will hold its annual meeting on September 12th, 13th and 14th, at Reading. This will be the first time that the State Society has met in Reading, due largely to lack of proper accommodations in the past. This drawback, however, has been overcome, as the new Berkshire Hotel is a thoroughly up-to-date and modern hotel, affording ample room for a large number of exhibitors and for the scientific meetings of the Society.

Dr. D. C. Kline, of Reading, is chairman of the Entertainment Committee, which is sufficient guarantee that everything will be done to add to the comfort and pleasure of the visiting members.

The Reading meeting will be an important one because of the fact that certain large matters of wide professional importance will have to be considered. Among the most important of these is the question of State organization. This was agitated a few years ago by Dr. Leon T. Ashcraft in his presidential address, and the work was given a great impetus through the efforts of our ex-President, Dr. B. F. Books. Our President, Dr. J. M. Heimbach, has been actively engaged throughout the year in visiting and organizing local societies, and it would seem that the time was now ripe for perfecting State organization. Dr. D. P. Maddux, of Chester, who has given a great deal of thought to the matter, is of the opinion that organization along county lines is impossible, as some counties contain too few physicians to perfect the county organizations. The most practical plan suggested so far seems to be to form county organizations where a sufficient number of physicians are practising in a county, and where too few exist for this purpose, to group neighboring counties into sectional societies.

The question of national organization too will have to be determined upon, as explained in the last issue of *THE HAHNE-*

MANNIAN MONTHLY. The American Institute of Homœopathy has initiated a plan to affiliate all of the State societies directly with the American Institute of Homœopathy. In order to do this it is, of course, necessary to get the consent of the State Societies and also to discuss the question of financial support of the Institute by the various State Societies. This is a matter of vital importance to every homœopathic physician in the United States. It is obvious that by such organization only can we successfully combat legislation discriminating against practitioners of homœopathy. It is unfortunate that such organization of the homœopathic profession was not completed years ago, and it is imperative that no time should be lost in bringing it about.

The question of increasing requirements in medical education is one that will in all probability be brought before the Society. These requirements are being gradually increased to such an extent that the effect upon the profession is becoming very marked. Doctors are rapidly becoming a scarcity both in our own school and in the dominant school, owing to the time and expense necessary to secure a modern medical education. On the other hand, the number of untrained and unscientific practitioners of various cults is enormously increasing in this State as well as in other States. But yesterday the writer was conversing with a physician who informed him that within the last three months a real estate man, a barber, a nurse and an ice man, having completed a three months' course in one of the so-called drugless systems of healing, had opened up offices in his neighborhood. It is obvious that since the high requirements have been put in force the public are getting poorer doctors rather than better ones. As Dr. Nesbitt has expressed it, the Medical Boards have "levered up" the standard of one portion of those caring for the health of the community and lowered the standard of all others. We concede that these alterations in standards, which have been brought about largely through the efforts of the American Medical Association and of the Carnegie and Rockefeller Foundations, were advocated by men who were earnest and sincere. We regret that their plans have not worked out for the benefit of the public as they intended. We do not desire to be harsh in our criticism of their efforts, as we realize the truth of the old proverb, "Wisest plans of mice and men oft go astray." We do feel, however, that these misguided enthu-

siasts have been allowed to go far enough, and that it is time for the practical men of the profession to take a positive stand in this matter in order that the interests of the community and the future of the medical profession may be protected. Homœopathic societies as a rule really "follow suit"—that is, after the members of the dominant school advance an idea, they come along a year or two later and endorse it. In other words, they adopt a sort of "me too" attitude. Here is the chance to initiate a move to demand that the education of doctors be kept on a practical basis, and to insist that all who publicly claim to treat the sick for pay come up to the same standard as the law requires.

G. H. W.

MEDICAL NEWS IN DAILY PAPERS.

ALMOST all of the great metropolitan newspapers publish daily a column or more of information on medical matters written by some physician who has made this phase of medical literature a specialty. Undoubtedly the public demand and should receive information in regard to medical subjects. The prevention of disease and the maintenance of health is now very properly regarded as a matter in which the entire community has a vital interest, and it is neither wise nor proper that information on these subjects should be confined merely to professional journals that are available to no one except physicians.

It is unfortunate, however, that many of the medical writers who dispense medical information *via* the newspapers are so intent upon imparting information of a sensational character that they do not hesitate to go beyond the bounds of ascertained facts in order to appeal to the imagination of their readers. This is unfortunate in two ways: First, because the layman gets erroneous impressions in regard to disease and in regard to the treatment of certain conditions, and the family physician is frequently very much handicapped in his legitimate efforts by the erroneous impressions the patients have gained in this manner. Another and probably more serious effect is the fact that the people in general accept the statements of the so-called "scientists" who write these articles in a manner that is more significant of their credulity than of their discrimination, and when they find on further inquiry

that the "scientist" for the sake of making a good "write-up" has perverted or misstated the facts, they resent the betrayal of their confidence and are inclined to look with doubt upon all future statements of medical men.

As a sample of the kind of statement to which we refer may be cited a recent publication in a Philadelphia newspaper in which the public were informed in the most positive manner that all the emotions, such as love, hate, jealousy, etc., originate in the secretions of the thyroid gland. The actual basis for any such statement is very slender indeed. No one can doubt but that ill health produces depressing emotions and possible alterations may occur, under such conditions, in the glands of internal secretion. But to state as a proven scientific fact that all human emotions are due to variations in the thyroid secretion is certainly unwarranted.

G. H. W.

PROVING OF INDOL BY THE HERING LABORATORY.

THE excellent proving of indol presented by William B. Griggs, M.D., the Director of the Hering Laboratory of Hahnemann of Philadelphia was easily one of the features of the American Institute meeting at Baltimore this year. Dr. Griggs and the students of Hahnemann College have just completed a proving of c. p. glycerine potentized to the 6x, 30x and 200x preparations. This proving will be presented at the next meeting of the Pennsylvania State Society and will no doubt excite great interest.

INFANTILE PARALYSIS.

THE present epidemic of this disease in New York City is threatening to invade neighboring cities and states and is causing much uneasiness, especially amongst the parents of families. A number of cases have developed in Pennsylvania and New Jersey and recently in Philadelphia. There is, however, no cause for alarm. The State Board of Health in establishing a quarantine among children coming from infected districts is well within its rights, despite the inconveniences caused by this measure. Prevention is best obtained by rigid attention to general and personal hygiene, and in early and thorough atten-

tion to all illnesses of children, however trivial they may seem, especially the diseases of the nose and pharynx and of the alimentary canal.

It is rather unfortunate that this disease is referred to as "infantile paralysis" instead of its proper medical name—"Acute Anterior Polyomyelitis," as this disease is by no means confined to infants or children in any larger proportion than is scarlatina.

Up to the present time the germ of this disease has not been isolated and no specific treatment has been discovered; symptomatic treatment is advocated by all observers, and therefore homœopathic methods and remedies should give best results. Diagnosis in advance of the incidence of paralytic symptoms is extremely difficult. It is to be hoped that the urgent measures in force will prevent its spread and rapidly reduce its prevalence.

W. M. H.

CRATEGUS.—Crategus is one of our valuable heart remedies. It is the English hawthorn, and a brief of its symptomatology would give the following effects in proving; a brief of ready value in the practice of medicine.

- (1). A reduction in the pulse rate.
- (2). A lowering of the blood pressure.
- (3). A dicrotic pulse and pulsus inequalis.
- (4). Excessive perspiration and skin eruptions.
- (5). A pain under the left clavicle; backache; sharp pains in the extremities; headache; conjunctival irritation; cough; nasal discharges; disturbed sleep; mental dulness and mild gastric derangements.

Concerning the effects of crategus it is interesting to note that the symptom "a reduction in the pulse rate" was reported in the proving of this drug conducted at the University of Michigan. The symptom "a pain under the left clavicle" was reported by G. Harlan Wells, some years ago, as a clinical symptom, which the doctor had frequently seen disappear under the influence of this remedy, but this symptom had never been produced by the remedy. The University of Michigan proving mentions no effect upon the blood pressure, but it is extremely probable that such an effect would have been reported had it been looked for. Dyspnea was produced in the Michigan proving. Attacks of dyspnea, associated with a slow pulse have been relieved so many times by the remedy, as to make the symptom one of the reliable indications for the use of the remedy. The following indications, therefore, call for the drug, in practice.

- (1). A reduction in the pulse rate.
- (2). A reduction in the blood pressure.
- (3). Dyspnea.
- (4). A pain under the left clavicle.

GLEANINGS

PREVENTION OF INFANTILE PARALYSIS.—To control the present epidemic of infantile paralysis, according to a statement issued by the United States Public Health Service, the chain of infection between persons harboring germs of the disease and the well members of the community should be broken. Infantile paralysis is probably caused by a very minute organism found in the nasal, mouth and bowel discharges of those who have the disease or who are carriers of the germ without themselves suffering from the ailment. All of the steps in the spread of the infection are not known, but if this germ can be prevented from passing from the infected to the well person, the disease will cease.

Infantile paralysis is not a disease of recent origin. Sporadic or scattered cases have occurred throughout the country for many years, but it is only during the last decade that the infection has assumed epidemic proportions in the United States. The present epidemic in New York City, on account of its magnitude and virulence, has awakened the residents of many communities to the danger of the importation of the disease into their own midst. This danger is real, but if due precautions are exercised it is believed that the epidemic will subside.

The actual control of the present epidemic must be left to the city, State and Federal health authorities. These organizations will properly quarantine and care for affected persons, prescribe sanitary measures and limit as may be necessary the travel of individuals in order to protect neighboring districts from the infection. Individuals and communities, however, can do much toward their own protection.

Poliomyelitis is probably spread directly or indirectly through the medium of infective secretions. Account must therefore be taken by communities of every means by which secretions are disseminated. Promiscuous expectoration should be controlled. The common drinking cup affords a method for the interchange of material of this nature and should therefore be abolished. Rigid cleanliness of glasses and utensils at soda fountains, in saloons and other public places should be enforced. Flies, roaches and other vermin, by coming in contact with infective secretions, may possibly convey them to our food and thus directly bring about the development of disease.

Therefore eliminate insects. Street and house dust bear a definite relation to the spread of many infections, and it is not unreasonable to presume that they may be a factor in the dissemination of infantile paralysis. Maintain strict cleanliness of streets, yards and alleys in order to prevent the breeding of insects and other vermin. See that all garbage and waste are properly cared for and collected at regular and frequent intervals. Guard all food supplies, especially milk and other perishable products. Digestive troubles of children arising from the ingestion of

food of questionable quality may lower resistance. Assemblies of children in infected localities are to be discouraged, if not actually forbidden. While the above measures are in a sense general, and applicable to many epidemic diseases, their importance should not be overlooked.

Individual preventive measures may be thus summarized:

Summon a physician at once and immediately notify the health officer of the presence of the disease. If the disease is present in the community, medical aid should be sought whenever a child is sick, no matter how light the illness; many cases of infantile paralysis begin with a slight indisposition. Should the illness prove to be infantile paralysis, isolate the patient, place a competent person in charge, and reduce all communication with the sickroom to a minimum. Hospital care is preferable, not only for the child, but in order to better safeguard the spread of the disease. The sickroom should be well ventilated and screened. Nasal and mouth secretions should be received in cloths, placed in a paper bag, and burned. The clothing of the child, the bed linen, and the excretions should be disinfected in the same manner as for typhoid fever—that is, by boiling, the long-continued application of 5 per cent. carbolic, or other well-recognized disinfectant. The same is true for dishes and drinking vessels. Nurses should exercise the same precautions as regards cleanliness of hands in caring for infantile paralysis patients as for those afflicted with other infectious diseases.

A child may convey the disease to others even after a lapse of several weeks. For this reason quarantine should be maintained for a considerable period, usually from six to eight weeks, and the above precautions should be adhered to during this time. Disinfection of the room following recovery is advisable.—*North American Journal of Homœopathy.*

HOMŒOPATHS AT WAR WORK.—Our supporters will naturally be eager to know of any specific activities directly connected with war work wherein homœopathists have had a share. It is a matter for pride that we have out of our small numbers been able to supply so much zeal and energy. The description that follows makes no pretensions to be exhaustive; it is one of the distinguishing features (and a fine one) of war work of all kinds that it has been nearly all done simply and unostentatiously. It therefore often escapes public notice, but nevertheless of our definite service we can make the following brief summary: Hospital work at Neuilly and other parts of France, in Petrograd and by many colleagues in different parts of Europe, we merely mention here and pass on. In England homœopathic hospitals in London, Bromley, Leicester, Plymouth, Southport, St. Leonards, Tunbridge Wells, have given as many beds to the authorities as possible. Dr. Dudley Wright gave fifteen months' service to the Anglo-American Hospital in Normandy. Colonel Deane, M.D., has done much medical work of various kinds and is now Medical Superintendent at Croydon. Dr. Borland (Captain R.A.M.C.) has been in France and Salonika, and Dr. Lang (Captain R.A.M.C.) is in France. Dr. Leo Rowse (now Major R.A.M.C.) is in charge of 800 beds and a staff of doctors and nurses to correspond at Malta. Dr. Hare has done sanitary work, A.S.C. work, and is now working at bacteriology in Cairo. Dr. Francis Wheeler, after long service in Gallipoli, is now in Egypt, as is

also Dr. Cunningham, who also put in four and a half months' surgical work at Dieppe. Dr. Renton has served in Belgium, Gallipoli, and now is at Port Said. Dr. Marriott, Dr. Grace, Dr. Ramsbotham and Dr. Ambrose are on R.A.M.C. work at unknown addresses; and Dr. Cooper, Dr. Chisholm Williams and Dr. Conrad Green are also in the Army Medical Corps and at work. Dr. Ashley Bird has been head of an ambulance train since the early days of the war. Dr. Octavia Lewin and Dr. Mabel Hardie have worked in France, and up and down England there is hardly a homeopathic doctor who has not been able to make some definite contribution in war service. Apart from medicine, Mr. Attwood, Secretary of the L.H.H., is a Captain in the R.F.A., and has been on active service for nearly a year; and Dr. Robertson is a Colonel in the A.S.C. Good news reaches us from time to time of all our nurses who are working in various parts of the world. During 1915 ten more have completed their training and joined Queen Alexandra's Imperial Military Nursing Service, making a total of thirty-five to forty nurses now nursing the sick and wounded in military hospitals.—*Annual Report of the British Homœopathic Association.*

THE RADIOGRAPH PICTURE IN GASTRIC AND DUODENAL ULCER.—The X-ray is only a means in diagnosis and the report should be so interpreted. Repeated pictures and fluoroscopic exposures should be taken, and the report confirmed only if there is correspondence and permanence in the findings.

The characteristic symptoms are:

1. Antiperistalsis.
2. Increased peristalsis and motility with six-hour residue.
3. Hypertrophy.
4. Mechanical deformation of the stomach by scars.
5. "Nischen syndrome."
6. Hour-glass stomach, true and spastic.
7. Enlarged and deformed duodenal bulb (Cole).
8. Delay in emptying of duodenum.
9. Displacement of pylorus to the right.
10. Fixation of pylorus on massage and change of position.
11. Localization of pressure point.—*Exchange.*

THE TREATMENT OF NEVUS FLAMMEUS (PORT WINE MARK) AND ALLIED CONDITIONS BY FILTERED VIOLET RAYS, EMPLOYING THE COMPRESSION METHOD OF APPLICATION.—W. L. Clark, Philadelphia.—*Therapeutic Gazette*, May 15, 1916.—Clark reports ten cases, and if we may judge by the illustrations, the results are brilliant. For details of technic the reader is referred to the original paper. Clark concludes as follows:

1. "Port wine" nevi, telangiectases, rosacea, and other superficial vascular skin lesions may be treated with good cosmetic results.
2. Powerful ultra-violet rays with screens to filter out the red, yellow and green, and compression by means of a quartz lens, are necessary for success.
3. The treatment will improve scars caused by caustic agents sometimes used to treat these lesions.

4. Failure may be due to imperfect technic, carbon adhering to the quartz enclosing the mercury, or to the lens.

5. Nevi which fade upon pressure respond more rapidly than those which do not fade, though both types are quite amenable to treatment. All nevi do not react with equal promptness. When there is a complication of thickened connective tissue, prolonged treatment is necessary.

6. Young children respond more rapidly than adults, because the skin and vessel walls are thinner and less mature, hence the activity of the rays is augmented.

7. Enlargement of features, such as lip, nose, etc., due to blood engorgement, sometimes complicating "port wine" nevi, are reduced by this method.

8. Brunettes require more prolonged treatment than blonds on account of the resistance offered to the rays by the skin pigment.

9. Healthy skin is more susceptible to ultra-violet rays than abnormal skin, and must be protected.

10. This is a safe method for patient and operator.

HEXAMINE AS A URINARY ANTISEPTIC.—J. W. Thomson Walker, M.B., London.—*Medical Press and Circular*, April 5, 1916.—A study of the chemistry of hexamine in the urine leads to the following conclusions as to its use:

(a) In acute bacillus coli infection: Urinary antiseptics should not be used in the acute stage. Alkalies must be given till the urine is alkaline, and this must be continued for three to four days. The temperature becoming normal, if infection is still evident in the urine, hexamine should be given and increased in dosage till the limit of tolerance is reached. In acute acid cystitis the use of urinary antiseptics of the formaldehyde group is to be deprecated, since irritation of the bladder results.

(b) Alkaline cystitis: Here hexamine can have no action and the urine must therefore first be rendered acid by acid sodium benzoate or ammonium benzoate. Boric acid may be used to advantage. When urine has been rendered alkaline hexamine is added.

CALCIUM SULPHIDE AN ANTIDOTE FOR MERCURIAL POISONING.—B. Merrill Ricketts recently described a method devised by him to antidote mercury in the system after the swallowing of a lethal dose. For every grain of mercury ingested he gives one grain of calcium sulphide by the mouth and repeats it every two hours until five grains have been taken. If the case is already forty-eight hours old when treatment is begun he injects the drug into a vein—one grain in an ounce of water for each grain of mercury swallowed. Ricketts reported several cases of recovery, in one of which eighty grains of bichloride had been taken.—*American Journal of Clinical Medicine*.

THE LOUSE PROBLEM AT THE WESTERN FRONT.—A. D. Peacock presents a morphological study of the *Pediculus humanus* or common body louse and the results of an investigation into the habits of this parasite. As a result of his experiments it was found that the longest period during which lice survived separation from the human body was nearly nine

days. The maximum time during which eggs away from the body might remain dormant was found by Warburton to be about forty days. This was under laboratory conditions and the temperature fell at times below the freezing point. Similar experiments were carried out and samples taken from a shirt exposed thirteen days did not hatch after twenty-eight days' incubation. In applying this knowledge the important fact is that eggs on the clothing, particularly the outer garments, if not treated regularly by ironing or disinfection, are a possible source of infestation for as long as a month after laying. Also, the removal of the clothing from the body for a few days in order to kill the eggs and lice by exposure is not a practical scheme. The louse, therefore, is a parasite which is utterly dependent upon man's blood for sustenance and man's body and clothing for prolonged, prosperous longevity and reproduction. The louse adds greatly to the troubles of the soldier at the front largely because of its interference with sleep, which results in impaired vitality and mental weariness.—*The Lancet*.

DETERMINATION OF SEX.—J. S. Freeborn states that as a result of study of 1000 obstetrical cases he was able to foretell the sex previous to birth in 97.5 per cent. Nearly all conceptions during the first half of the intermenstrual period result in female offspring, boys resulting from conceptions in the latter half. Hence sex control should be a simple matter—the mere practice of abstinence at stated times. To formulate a law: Have marital relations only during the first ten days after menses when girls are desired, and during the first ten days before menses when boys are sought. There are certain sources of fallacy which must be borne in mind; for example, the woman may wrongly give the date of menstruation.—*Canadian Practitioner and Review*.

THE ART OF THE PERFECT DOCTOR.—A French review publishes the principal precepts of an old practitioner, dictated by his experience in the medical profession—"How to Make the Doctor":

1. Cure the patient as you will expect to be cured.
2. Individualize the case.
3. Do not lose your patience or become excited with children.
4. Make the patient to understand that you know the cause of the malady, but do not give too much confidence.
5. Do not make superfluous calls.
6. Take care as to the details of the treatment.
7. The doctor who uses an automobile is almost always considered a wise man.
8. At the bedside of the client, remember that similar cases have been cured.
9. Remember that the sick like astonishing facts.
10. Put in evidence that you have a conception of your profession completely different from that thought by the common profane.
11. Always accept the prompt payment.
12. The more the salary you require, the better qualification you will receive.
13. Never rush to a call if not for an emergency.

14. Do not give too many explanations to the educated sick.
15. In asking little you are considered as an idler.
16. In asking too much you are considered a commercial physician.
17. Beware of the women and their confabulations.—*Policlinico*.

WOMEN'S LIFE LONGER THAN MEN'S.—According to these tables the average expectation of life, at birth, for males is 49.9 years; for females, 53.2 years; for white males, 50.2 years; for white females, 53.6 years; for native white males, 50.6 years; for native white females, 54.2 years; for negro males, 34.1 years, and for negro females, 37.7 years. Females are thus longer lived than males to the extent of more than 3 years, and in the case of the native whites and negroes, more than $3\frac{1}{2}$ years.

The expectation of life at the age of 1 is considerably greater than at birth, being 56.8 years for native white males and 59.5 for native white females, and reaches its maximum at the age of 2, when it is 57.5 for the former class and 60.1 for the latter. At the age of 12 the average native white male's expectation of life is 50.2 years; at 25, it is 39.4 years; at 40, 28.3 years; at 50, 21.2 years; at 60, 14.6 years; at 70, 9.1 years; and at 80, 5.2 years. Similarly, at the age of 12 the average native white female's expectation of life is 52.6 years; at 25 it is 41.8 years; at 40, 30.3 years; at 50, 22.8 years; at 60, 15.8 years; at 70, 9.8 years; and at 80, 5.5 years.

A part of the difference between expectation of life for men and for women is due to the greater number of violent deaths among men. Nearly four-fifths of these violent deaths—suicides, homicides, and accidental deaths—are of males, and such deaths form about 7 or 8 per cent of the total number occurring each year. This fact, however, does not account fully, or even in major part, for the greater longevity of women. An examination of the tables discloses a lower death rate for females than males during each of the first twelve months of life and, in the case of the native whites, during each year of life up to the age of 94. During the first month of life the death rate among native whites is nearly 28 per cent higher for boys than for girls, and during the first year it is more than 20 per cent higher.—*Bureau of Census*.

IN A STUDY OF "THE AMMONIACAL DIAPER IN INFANTS AND YOUNG CHILDREN."—(*Amer. Jour. of Dis. of Child.* Vol. 10, No. 6, P. 436). John Zahorsky, M. D., St. Louis—Notes 78 cases in all of which there were some skin lesions—it was observed that the worse cases were in young children from 1 to 4 years of age. The disorder seems to be almost limited to artificially fed infants. The association of the ammoniacal diaper and the exudation diathesis is frequent, the onset is usually abrupt and the course is very irregular and indefinite. The irritating urine may be present for one day only; then, it may last for weeks. The conclusions follow:

Free ammonia in the diapers of young children is a frequent condition.

If much ammonia is present, severe irritation and vesication of the diaper region may occur.

The ammonia is derived from the ammonium compounds in the urine, and is liberated by an alkali present in the diaper—soap, lye, lime, or stool.

V. A. H. CORNELL, M. D.

LOBAR PNEUMONIA.—In a paper on "Lobar Pneumonia in Childhood; Roentgen Ray Findings and an Explanation of Bronchial Signs", (*Amer. Jour. of Dis. of Child.* Vol. ii. No. 3, P. 188) Howard H. Mason, M.D., N. Y., summarizes as follows:

SUMMARY

Thirty-seven cases of lobar pneumonia were studied with the Roentgen rays, most of them repeatedly. All thirty-seven cases showed a definite shadow.

The shadow was always so placed that it touched the pleura at some point.

The early shadows were triangular in shape, with their bases on the pleura and their apices separated from the region of the root by normal lung.

In their later development the shadows extended in size and became uniform from the periphery to the root of the lung. When the shadow involved this entire stretch, bronchial voice and breathing were present, but not otherwise. It is believed that the inference is justified that the dimensions of the shadows correspond to the extension of consolidation.

CONCLUSIONS

The following conclusions may, therefore, be drawn:

1. The consolidation of lobar pneumonia in children begins in that portion of the lung which lies just beneath the pleura.

2. A central pneumonia in the strict sense never occurs. Silent consolidations are subpleural consolidations and are separated from the hilum by normal lung.

3. Bronchial breath and voice sounds are dependent on the presence of a medium of comparatively uniform density from the site of their origin (the trachea and large bronchi).

V. A. H. CORNELL, M. D.

FEVER IN TUBERCULOUS INFANTS.—In a paper entitled, "Fever—The initial sign of Tuberculous infection in Infants." Mark S. Reuben, M.D., New York, concludes as follows:

(1) The tuberculin reaction is a specific reaction. A positive reaction signifies the presence of a tuberculous focus, either active or latent, somewhere in the body. Normal individuals cannot be sensitized with tuberculin.

(2) In infants tuberculous infection invariably leads to tuberculous disease, either mild or severe. The pathologic basis of tuberculous infection and tuberculous disease is the same in both—both terms imply the formation of tubercles. In the former the lesions are small, localized, and show signs of healing; in the latter the lesions are more extensive and more advanced. In adults, tuberculous infection may take place without the occurrence of fever or any other signs; in infants tuberculous infection is invariably associated with fever and signs in the chest or abdomen.

(3) All human beings are predisposed to tuberculous infection.

Children of tuberculous parents are more apt to be tuberculous because they are more exposed to infection than are other children. Before they become infected, infants of tuberculous parents show the same physical development and the same gain in weight as do average children without tuberculous infection. The importance of segregating infants from tuberculous parents is apparent. Predisposition is easily overcome if exposure to source of infection is avoided.

(4) Fever is the first sign of tuberculous infection in infants. The fever is of sudden onset; at first high (seven to fourteen days), is remittent and gradually comes down by lysis, but not to normal; it continues at slightly above normal, 100-101 degrees for twelve to twenty weeks, with periods of complete absence of fever; exacerbations (two to three) of high fever, of same type as that of onset usually occur.

(5) The tuberculin reaction in these cases usually becomes positive at the onset of fever or within a few days after the onset.

(6) At the onset of the infection no physical signs are present. Within the course of a few weeks (two to three) they all develop signs in the chest, which, in cases which get well, gradually disappear.

(7) The prognosis of tuberculous infection in infancy is more favorable than was formerly supposed; 30 to 35 per cent. of these infants survive the infection.

(8) From these facts we are led to conclude that the pathologic lesions, even in infancy, may be localized and completely healed.

(9) Fourteen per cent. of prolonged febrile conditions in infants diagnosed as influenza give a positive Pirquet reaction. It is possible that many other fevers of obscure origin in infants, children and adults are due to a reaction of the body to tuberculous infection.

(10) The tuberculin reaction should be carried out on every infant who has an idiopathic fever and presents no physical signs.

V. A. H. CORNELL, M. D.

AUTOGRAFTS IN INFECTED FIELDS.—Dr. A. A. Law (*Jour.-Lancet*, April 1, 1916) has found clinically and experimentally that most autografts possess a certain definite resistance to infection, but not if this is acute and severe. The tolerance of skin grafts for septic fields has long been recognized, especially where they are placed upon a bed of granulation tissue which is generally infected. In a laboratory experiment, in performing neural tubulization, a segment of the animal's saphenous vein was transplanted into an old infected field, with survival of the vein and the proliferation and regeneration of the nerve. Fascia seems to have as much, or more, resistance to infection as any other tissue, as shown by clinical observations and experiments on dogs, which had been infected days or week previously and had become more or less resistant to infection. In these fascia lata was transplanted into the abdominal wall and the new wounds infected from the old suppurating wounds, and the fascial transplants were found to survive. Fat is rather tolerant of mild infection, as shown by the successful use of fat flaps wrapped about nerve trunks and left exposed in a large granulating wound. Autogenous bone-grafts in infected fields act much as do cases of osteomyelitis—part of the graft survives and proliferates, part is absorbed and part sequesters.

DIPHTHERIA CARRIERS.—G. Van't Hoff (*Monatschr. f. Kinderheil.*, Bd. xiii., Nr. 3, 1914) tabulates the results obtained from cultures made from forty-one diphtheria patients who had been dismissed as cured from the Berlin Charity Hospital. Instead of cotton swabs he used platinum loops to stroke the tonsils and press the bacilli out of the crypts. The cultures were incubated from twenty-four to forty-eight hours. The author found virulent bacilli present from five to ten months after leaving the hospital with a clinical cure. Bacilli did not disappear in from three to six weeks after cure, as has been supposed would occur; but continued for a much longer period. The cultures were made in the homes of the discharged children, who were followed for many months after their discharge from the hospital.—(*The American Journal of Obstetrics.*) *Archives of Pediatrics*, Vol. xxxiii, No. 2, P. 123.

RELATION OF CHRONIC MASTITIS AND CARCINOMA OF THE BREAST.—Drs. W. Carpenter McCarty and E. H. Mensing (*St. Paul Med. Jour.*, May, 1916), from a study of 967 mammary carcinomata and 406 simple mastitides in the Mayo Clinic, are led to emphasize five points: 1. Carcinoma of the breast is always associated with chronic mastitis. 2. The percentage of legitimate error in the clinical diagnosis of simple chronic mastitis and carcinoma is respectively 62.7 per cent. and 23.9 per cent. 3. The percentage of legitimate error in the clinical diagnosis of the condition of the axillary glands is 36.9 per cent. 4. There are three distinct histological pictures in chronic mastitis. At one extreme there is a benign condition and at the other extreme there is a malignant condition. The mean, which may be easily recognized, is at present doubtful. 5. The association of the two conditions is too close to allow a consideration of the one without the consideration of the other. The following plan in the surgical management of these cases is suggested: 1. The condition in the breast which is associated with classical clinical signs of carcinoma should be treated radically. 2. In doubtful cases, in women near or over thirty-five years of age, the entire mammary gland should be removed for immediate examination. If primary or secondary hyperplasia be present, nothing more should be done; if tertiary hyperplasia be present, a radical operation should be performed. 3. In doubtful patients near or under thirty-five years of age a wide sector of the mammary gland, including the pathological condition, should be removed for examination. If primary hyperplasia be present, nothing more should be done. If secondary hyperplasia be present, the rest of the mammary gland should be removed, and if tertiary hyperplasia be present, the radical operation should be accomplished. This plan avoids incision of tumors. It removes the possibility of unnecessary radical operations and the consequent physical and psychic embarrassment.—*Internat. Jour. of Surgery*.

OPEN AIR TREATMENT OF PNEUMONIA AND ANEMIA IN CHILDREN.—Freeman (*American Journal of the Medical Sciences*, January, 1916) gives the method of treating cases of pneumonia in children at the Roosevelt Hospital. He gives them a dose of castor oil, puts them in beds on the roof, keeps their extremities warm and their bowels open. Very few cases received any stimulant or expectorant. In some cases when the

cough was troublesome, a dilute solution of tincture of the chloride of iron in glycerin or water has been used. The results show that under such conditions pneumonias run a short course and have a very low mortality. This open air treatment also seemed to produce remarkable improvement in anemic and leucocythemc conditions with little or no drugs, and the writer concludes that treatment of children in an open air shed in winter increases their vitality and resistance to disease more powerfully than medicines.

THE END-RESULTS OF FOURTEEN OPERATIONS FOR PERFORATED GASTRIC AND DUODENAL ULCER.—C. L. Gibson. (*Surg., Gynec. & Obst.* 1916, xxii, 389.)—The patients were all males. The average age was 35. The average time before operation was 10 hours, to which is attributed the 92 per cent. of cures.

In 7 cases the perforation was in the duodenum and in the remainder in the stomach close to the pylorus.

All cases except 3 gave a history of previous gastric disturbance.

The diagnosis was made on the history of the previous gastric disturbances. (2) Sudden sharp pain. (3) Rigidity of the upper abdominal muscles and occasional vomiting of blood. (4) The escape of gas when the peritoneum was opened under water, is a valuable and conclusive evidence of a perforation.

The perforations are usually to one side or the other of the pyloric vein. He believes that only very seldom is anything more than a double layer of purse string sutures necessary to close the opening. That gastro-enterostomy is only very seldom necessary. The length of time necessary and the danger of spreading the infection far over-balance the possibility of pyloric stenosis resulting from infolding the ulcer.

That it is better to wait and if later obstruction develops the operation may then be necessary. Most of the patients have returned at later periods for X-Ray and gastric analyses. 7 cases showed no gastric retention. 2 had a very small amount. 3 had a considerable amount probably due to marked ptosis of the stomach.

10 cases had a gastric analysis. In 2 the stomach emptied too quickly to secure a specimen. 3 had normal acidity. 3 had a marked hyperacidity. 2 had acidity less than normal.

In conclusion he believes that early diagnosis is the most important factor. (2) The simplest, quickest and withal the most effective operative procedure should be employed. (4) Operations as resections and gastro-enterostomies for the cure of the ulcer are not indicated.

J. G. SPACKMAN.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY DR. DONALD MACFARLAN
PHILADELPHIA

APOPLEXY.—Outside of the present war zone we hear much nowadays about civilization. It is considered by many an unmixed good. There are those, however, who dissent from this view, and among these may be classed Mr. Edward Carpenter. He has written a work in which civilization itself is regarded as a disease, and one to which all nations fall a prey as they advance in material well being. Hence he has called his book "Civilization, Its Cause and Cure."

Practitioners of medicine realize the truthfulness of the concept and there flits before the mind the increasing prevalence of chronic disease. Epidemics are nipped off by saner sanitation and immunizing agencies and with the lengthened span of living there come along desired indulgences. Dr. Carlos MacDonald's contention regarding mental unsoundness would also obtain here. He points an accusing finger at wine, woman, work and worry.

Of all the disasters of the chronically aged there is one which is very engrossing, and that is apoplexy. Many see in this only an interest purely academic. It is no prologue for them. It's a mere ringing for the closing curtain. This attitude is a decidedly wrong one and no good can come of it either to the poor patient or the poorer doctor. The best care available is none too good even for the doomed.

In this connection it is of interest to know the views of G. H. G. Jahr, a splendid early Hahnemannian, upon this subject of apoplexy, at least from a non-academic viewpoint. This is what the chevalier has to say upon the matter:

"Whatever may have been reported under the general denomination of *apoplexy* concerning the remedies that are supposed to have cured the attack, it is perfectly certain that no *true apoplexy* with *effusion* in the brain, has ever been cured either with *pulsatilla* or *nux vomica*, *arnica* or other similar remedies, nor that the imminent danger of death will ever be removed by any of them. In a case of *sanguineous effusion*, which always takes place if the suspension of cerebral activity is associated with paralysis of a part or a whole side of the body, the speediest possible exhibition of *belladonna*, provided it is not too late, even when given at the thirtieth potency, a teaspoonful every fifteen or thirty minutes, may do wonders and save the patient's life; if, after the cerebral functions have been reawakened by *belladonna*, there is an evident suspension in the improvement, we may, according to circumstances, think of such intercur-

rent remedies as *opium*, especially if *stupor* with *stertorous breathing* has supervened, or of *hyoscyamus*; if these remedies do not effect any striking improvement, we shall most likely have to fall back on *belladonna* and continue this remedy until the consciousness has been entirely restored, after which, if symptoms of cerebral congestion or paralysis still remain, which *belladonna* seems unable to remove, other remedies will undoubtedly have to be chosen.

"R. O. MOON.

"G. H. G. JAHR."

THE C. E. WHEELER EDITION OF THE ORGANON.—At the last meeting of the American Institute attention was very properly called to the splendid and altogether inexpensive edition of the Organon of Dr. Charles E. Wheeler, of London. These remarks of Dr. J. P. Sutherland came incidental to the reading of his paper upon the subject of homœopathy. There is little doubt had the Everyman Press seen fit to place the work upon sale an excellent work of propaganda would have been started on the right track. In this work of Dr. Wheeler an article upon the handling of epidemic disease would at this time be very opportune, as poliomyelitis is now raging in New York and Hahnemann's notions would prove of great practical interest even in this age. As a sanitarian Hahnemann was truly remarkable.

Another feature of the work is the extraordinary lucidity of thought and beauty of expression therein contained. Writers of this fashion are modelers of elegant and happy expression, and this certainly accounts in a degree for the perennial vogue of a Shakespeare, a Goldsmith, a Stevenson or an Irving.

JNO. P. SUTHERLAND.

COFFEA CRUDA.—It is not my intention to discuss the dietetic use of coffee, the good or the evil which it may occasion; this important subject has been investigated by several writers, but most comprehensively and profoundly by S. Hahnemann; the therapeutic action will alone be considered.

According to the experience which has been obtained in regard to the effects of coffee upon the healthy organism, the principal primary effect is a pathological excitation of all the organic functions. When coffee acts moderately upon the healthy organism the irritability of the organs of sense is morbidly increased; the visual power becomes more acute, and the hearing and taste get finer and more sensitive. Apart from these exalted states, the sensorium is more vivid (hence the increased susceptibility to pain), the mobility of the muscles is increased, the sexual desire is more excited, even the nervous activity of the digestive and secretive organs is increased; hence a morbid sensation of excessive hunger, increased desire and facility of the alvine evacuations and of the emissions of urine is brought about.

And to what an extent the nervous and animal activity of the organism is increased by coffee appears from the sleeplessness which it excites in various shades and degrees, from the peculiar pathological excitation of

the mind and soul, and from the febrile warmth which coffee excites to such considerable degree.

The following translation from the French gives one a most accurate account of the value of coffee. It is taken from the French of Dr. Leon Vannier :

COFFEA CRUDA.

Characteristics. Hypersensibility of all the senses with exaggerated activity of the mind and body. Impressionability more peculiarly to pleasurable impressions.

Modalities. Aggravation by an emotion of an excessive character (joy, surprises, etc.), by cold, by open air and by night. Also an aggravation from powerful odors, narcotics, wine, and even from touching. Amelioration by warmth (except in case of toothache, which is relieved by cold application). Amelioration in lying down.

SYMPTOMS.

Type. The type is that of the tall, spare, bent-over individual with a brownish skin. They are temperamentally choleric and sanguine.

Nervous System. Extraordinary activity of mind as well as body. Full of ideas and quite unable to banish constant thinking and imagining; very active, always in motion. Very imaginative, constantly building up schemes for the future. Very impressionable and the mental impressions are very active. Excessive joyousness. The disposition is very whimsical; the patient is more or less given over to alternating fits of crying and laughter. There is present, in point of fact, what might be termed a hyperacuity of all the senses. He is able to read readily the smallest type. He is quite sensitive to odors of a penetrating character and the hearing takes in the least noise. The latter even extends to imaginary noises. There is marked insomnia. Patient is always awake and it is impossible to close the eyes in sleep. There is a physical excitation consequent upon the exalted mental state of the individual. The person is kept awake the night through revolving in mind all sorts of plans and formulating all kinds of different projects. Coffee is also of value in the sleeplessness of children who keep awake all night, excited and wishing to play.

Sensibility. Extreme hypersensibility to pain. Very intense neuralgic pains causing the inflicted one to despair and causing him much anxiety. Generally provocations by cold. There are aggravations by noise.

Head. Headache aggravated by all mental exercises, thoughts and conversation. It is worse on one side (hemicrania) and there is a sensation as if a nail were driven into the brain. Noises in the head. The patient hears cracklings in the head. Cracklings or bubblings in the occipital region.

Face. Neuralgias of the face. Red face in coffee drinkers.

Extremities. Crural neuralgia aggravated by movement after midday and night, ameliorated by pressure, aggravated by noise.

Digestive Apparatus. Toothaches, temporarily relieved by ice water in the mouth. Eats and drinks very rapidly. Hypersensibility to wine.

Genital Apparatus—Women. Periods ahead of time and of too long duration. Dysmenorrhea, with intolerable pains and large clots of black

blood. Hypersensibility of the vulva and vagina. Is unable to support a napkin. Voluptuous itchings. Comparisons as seen by Dr. Vannier are aconite, chamomilla, cypripedium, ignatia and nux vomica.

DR. LEON VANNIER.

DR. ERNST STAPF.

REMEDIES IN EPIDEMICS.—The winter just passed has been a very severe one in Philadelphia because of the epidemic of influenza and more especially of influenzal pneumonia, which diseases enormously influenced both the morbidity and mortality figures of the city while the trouble lasted. In looking over an old edition of the Homeopathic News, found among some data left by von Lippe, the writer came across an account of the remedies found useful in the epidemics of the Spring and Summer of 1855 in Philadelphia. It appears from this old slim-leaved homœopathic journal that "The second week of February, a violent N. W. wind prevailed, which was followed by influenza." Among the principal medicines used at that time specific mention is made in the account of belladonna, arsenic, ammonium muriaticum, ammonium carbonicum, phosphorus, bromine, bryonia and lachesis. There then follows very properly the indications calling forth this list in treatment.

Belladonna.—Chill, followed by fever; chill and fever alternating; chilly whenever the position in which one lies is changed; throbbing headache; red face; aversion to light; inflammation of the throat; pain in the back, as if it would break; pain in all the limbs; some discharge from the nose; dry, hard, periodical or barking cough, with headache and pain in the abdomen.

Arsenic.—Profuse watery discharge from the nose, excoriating the nostrils and making the upper lip sore.

Ammonium Muriaticum.—Watery discharge from the nose; nose stopped up; can only breathe through the nose; cough; *hoarseness and burning in the larynx*. (This is italicized in the journal. Phosphorus certainly has these two symptoms in a most marked degree as elicited by proving.)

Ammonium Carbonicum.—Fluent coryza, with stoppage of the nose, and *cough after midnight* (two to three o'clock A. M.).

Phosphorus.—Fluent coryza, with cough, which is worse *before* midnight, with hoarseness, soreness and burning in the chest.

Bromine.—Fluent coryza; *first the right nostril is stopped up, and then the left*; headache in the forehead, especially the right side, with a pressure downward, as if the brain was forced down through the nose; short, dry, hacking cough, with difficulty in breathing, which is short and hurried.

Bryonia.—Chill, followed by heat; pain in the head, as if it would split; pain in all the limbs; cough, with stitches or soreness in the chest; all worse when moving.

Lachesis.—Headache in the forehead; the discharge from the nose is trifling; throat sore, especially when touched; very soon the nose discharges profusely, and the throat and head are relieved.

C. HERING & A. VON LIPPE, Editors.



Wm. B. Van Buren

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ACUTE POLIOMYELITIS OR INFANTILE SPINAL PARALYSIS.

BY

C. S. RAUE, M.D., PHILADELPHIA.

Read before the State Homœopathic Medical Society, Reading, Pa., September 14, 1916.

POLIOMYELITIS is an acute infectious disease attacking chiefly children below the age of five years, although it frequently attacks older children and even adults. It may occur in epidemics, which are sometimes of widespread distribution. In most large communities, however, the disease remains endemic, and sporadic cases are encountered constantly. Epidemics are most frequent during the summer months. Poliomyelitis must be regarded as a contagious disease capable of spreading by contact and by means of healthy carriers, either children or adults, who harbor the virus in their nose and throat.

The causative agent is a filterable virus, more minute than a bacterium and not capable of demonstration by bacteriologic methods. Landsteiner and Popper in 1909 succeeded in experimentally producing the disease in monkeys; this was later

duplicated by Flexner and Lewis. These investigators demonstrated that the virus may be recovered from the secretions of the nose and throat of infected individuals and also from the stools.

Pathology. Formerly poliomyelitis was looked upon as a purely focal affection in which a toxic or embolic process limited to the anterior horns of the cord, either in the cervical or lumbar enlargements, produced the clinical manifestations. These deductions were made from a study of old cases which presented atrophied and shrunken areas in these regions of the cord. Recent studies of fatal cases, and a closer study of the symptomatology of poliomyelitis, especially during the epidemics in which many atypical forms of the disease are encountered, have shown that poliomyelitis presents the characteristics of a general infection, and that the meninges of the cord and sometimes of the brain are distinctly involved. It is now assumed that the infection gains access from the upper respiratory tract, possibly through the nasal cavity, and is carried to the cerebro-spinal nervous system by means of the lymphatics. The earliest changes observed are hyperæmia and œdema of the meninges with exudation into the arachnoid spaces (acute interstitial meningitis). This is most marked on the anterior surface of the cord and when the process extends into the cord, it does so along the blood vessels which enter the anterior fissure and supply the anterior horns of the cord. A rich cellular exudate is present which may cut off the circulation from the nerve cells with resulting necrosis of such an area; sometimes hemorrhagic changes are set up in the cord.

Areas that have been affected by pressure only may regain their function after the hyperæmia subsides and the cellular exudate is absorbed. Such areas, however, as have suffered from necrosis or extensive hemorrhage will undergo atrophy and present the typical appearance of the shrunken anterior horns mentioned in the older descriptions of the disease.

Symptoms. Poliomyelitis may present a diversity of clinical manifestations, since it not only varies widely in its severity, ranging from abortive, non-paralytic cases to fulminating, rapidly fatal cases, but also depending upon which region of the nervous system is mainly attacked.

(1). The Abortive Type. Many cases of this type occur

during epidemics and render the control difficult. These cases are true instances of poliomyelitis, simply lacking the characteristic paralysis of the distinctly spinal type. Definite indications of meningeal involvement are, however, usually present.

The attack may be ushered in by gastrointestinal symptoms, vomiting and diarrhoea, or with coryza, cough, general malaise, pains in the extremities. Moderate fever persisting for several days is present. Rigidity of the neck and a Kernig sign may be present, verifying the presence of meningeal involvement. A rigidity of the spine can also be elicited in many of these cases as well as tenderness of the muscles of the extremities and transient palsies. A lumbar puncture will verify the diagnosis when such suspicious symptoms are present.

(2). The Spinal Type. This represents the typical cases of poliomyelitis. The period of incubation is stated to be from five to ten days.

A prodromal period is observed in some cases, but it is quite common to be told by the parents that the child was well when put to bed and was found paralyzed in the morning. The condition is often attributed to a fall.

The prodromal symptoms may be respiratory or gastrointestinal. A cold in the head, diarrhoea and vomiting have been frequently observed to precede the paralysis by two or three days.

Fever and rapid pulse should be really looked upon as the beginning of the disease. This may precede the paralysis by several days. Drowsiness, hyperesthesia of the extremities and irritability are simply indications of the associated meningitis. Vomiting and diarrhoea are frequently observed during the onset of the disease. Constipation may be present in place of diarrhoea. Convulsions are not uncommon.

Paralysis usually develops early; in the majority of cases the lower extremities will show signs of involvement on the first or second day after the fever has set in. It may not reach its full extent until the third or fourth day, however. Paralysis is rarely delayed beyond the sixth day. One of the gravest dangers of poliomyelitis lies in the possibility of the paralysis ascending to the centres controlling the respiratory muscles, with resulting death from asphyxia. This sometimes occurs several days after the onset of the first signs of the leg paralysis.

In the majority of instances the paralysis remains limited to the legs; sometimes the abdominal muscles and the muscles of the back are also involved. As the disease subsides it is generally found that one side is much more affected than the other. Involvement of the arms is rare. The astonishing feature of the disease is the rapidity with which the paralysis clears up, after the convalescence once begins, and how little permanent paralysis is eventually left in cases which presented a complete paraplegia during the height of the disease. This is readily explained by the pathology of the affliction.

The paralytic condition remains stationary for a period of about two or three weeks. At the end of this time spontaneous improvement sets in and a gradual improvement in the paralyzed muscles continues for several months. After that the improvement will still continue but at a much slower rate and only under appropriate treatment. Some improvement may still be anticipated as late as two years after the attack.

The affected limbs present the flaccid type of paralysis resulting from involvement of the lower motor neurones with loss of the tendon reflexes. Muscles that are completely and permanently paralyzed undergo marked atrophy; sometimes the growth of the entire limb is retarded. As a rule, however, muscles are only partially paralyzed and the fibres which have escaped become hypertrophied and compensate for the defect. The extensors are more often involved than the flexors. There is early loss of faradic irritability in the completely paralyzed muscles and the reaction of degeneration can be elicited in them.

(3). *Bulbospinal Type.* This is a variety of the spinal type in which the cranial nerve centres in the medulla become involved. Usually this presents the terminal stage of the rapidly fatal ascending cases, simulating Landry's paralysis, in which the diaphragm and intercostal muscles are also involved. Sometimes bulbar symptoms occur early, notably difficulty of deglutition and hoarseness, and such cases may recover. Strabismus and facial paralysis is another frequent manifestation of this type and these cases also frequently recover; residual paralysis however usually remains. Bulbar symptoms may exist without any spinal involvement, although this is rare.

(4). *Cerebral Type.* This type was first described by Strumpell, who recognized the clinical identity of polioenceph-

alitis and poliomyelitis. In this type the virus of the disease spends its effect upon the cortical motor areas of the brain instead of upon the gray matter of the cord and an upper motor neurone paralysis results. The resulting symptoms are a hemiplegia with spasticity, heightened reflexes and no atrophy.

The attack is usually ushered in with fever, vomiting, convulsions, and delirium. Sometimes the symptoms closely simulate meningitis, which can only be differentiated by the lumbar puncture findings and the discovery of the associated hemiplegia. The prognosis is more grave than in the purely spinal type but it is by no means as fatal as other forms of meningitis.

Diagnosis. The diagnosis of poliomyelitis is readily made in the frank spinal type, the rapidly developing extensive paralysis of the legs with or without involvement of the arms and trunk muscles; the paralysis being of the flaccid type with lost reflexes and promptly followed by muscular atrophy, stamps the case distinctly as one of infantile spinal paralysis. The atypical forms may present many diagnostic difficulties, however, especially the abortive types. This is particularly true in sporadic cases. The cerebral and meningitic types are frequently confused with meningitis and the differentiation can at times only be made by means of a lumbar puncture.

The characteristics of the cerebrospinal fluid in poliomyelitis are a clear fluid containing a high percentage of polynuclear cells in the first two or three days (preparalytic stage) of the disease. These are rapidly replaced by mononuclear cells. Another characteristic of the fluid is its power to reduce Fehling's solution; this is fairly constant and is not found in tubercular or serous meningitis. Globulin is also markedly increased. Sometimes the fluid presents a characteristic yellowish discoloration.

Treatment. Absolute rest in bed during the acute inflammatory stage is imperative. It is not wise to resort to massage or electrical treatment until all pain and tenderness has disappeared from the affected limbs and until the temperature has been normal for at least a week. The paralyzed limbs should at once be maintained in a proper position by means of pillows and sand bags when necessary in order to prevent overstretching of the paralyzed muscles and heat should be applied to keep the limbs warm.

At the expiration of about three or four weeks active treat-

ment with electricity and judicious massage may be begun. If the muscles do not respond to the faradic current the galvanic should be employed. The object is to produce muscular contractions in order to improve the nutrition of the muscle and restore function as far as that is possible. Passive movements should be added to the treatment in order to overcome deformities. When once established, these will require surgical measures to correct them. The disability in a joint resulting from atrophy of one of the muscles either flexing or extending the same is often satisfactorily corrected by a properly adjusted brace, which not only supports the joint but also prevents deformity.

The remedies indicated in the early stages are *Acon.*, *Bell.*, *Bry.*, *Gels.*, and *Rhus Tox.* These are indicated on their influence over inflammatory processes in general and on account of their specific action upon the cerebrospinal nervous system and its investments. We should aim to differentiate them by means of their characteristic symptoms. Otherwise *Bell.* should be given the preference. *Mercurius* may be given with a view of absorbing exudation as promptly as possible. *Plumbum* is indicated at a later period. "The symptoms of chronic lead poisoning correspond very closely with the symptoms of poliomyelitis."—(C. G. R.) It has seemed to me that the administration of *Causticum* has in some cases improved the tone of the muscles after spontaneous improvement had apparently come to a standstill.

EARLY PULMONARY TUBERCULOSIS.

BY

WILLIAM STEELE, M.D., PHILADELPHIA.

EARLY pulmonary tuberculosis may be divided into three classes:

First.—Signs and symptoms chiefly constitutional, as shown by slight loss of weight and strength, slight fever and elevation of pulse. Signs in the lungs slight or absent.

Second.—Signs and symptoms chiefly local and referred to the lungs. Slight infiltration or consolidation of one apex. Constitutional signs or symptoms very slight or absent.

Third.—Children fifteen years old or under. No signs of in-

filtration of the lungs. Evidence of enlarged bronchial glands usually present. Constitutional signs and symptoms as shown by debility, pallor, loss of weight, etc., usually present.

In the majority of our leading medical schools, the subject of tuberculosis receives scant attention. Students are still taught that in order to make a definite diagnosis of pulmonary tuberculosis, there must be bacilli in the sputum or marked evidence of a consolidation of the lungs, as shown by dullness, bronchial breathing, increased vocal and tactile fremitus and rales. That a diagnosis can and should often be made without a positive sputum and without many of these signs in the chest is rarely brought to their attention.

This is a very unfortunate state of affairs. We can never hope to handle tuberculosis successfully until every physician and every medical student realizes (as many of the public now do) that the all important points in the diagnosis of early tuberculosis are not bacilli in the sputum, nor definite signs of an active process in the lungs, but constitutional signs and symptoms which show only too clearly, were they correctly interpreted that the patient is sick. A diagnosis, to be an early diagnosis, must be made before there is breaking down of the tissue with bacilli in the sputum. In most cases a positive sputum means moderately advanced tuberculosis and that many of the patient's chances of cure are already gone. A detailed history of the patient and his family, occupation, habits and surroundings is very important. While rarely, if ever, is the disease itself transmitted, it is undoubtedly true and should be borne in mind that certain physical traits are handed down from generation to generation. Among these inherited traits may be a weakened constitution, a tendency toward tuberculosis, or rather, a lack of resistance against this and other infections. Of great importance is the question of direct exposure to infection from actual cases of tuberculosis.

Measles and Whooping Cough.—These diseases are known to have a tendency, not only to awaken latent foci of tuberculosis but to leave the lungs in a weakened and irritated condition and extremely susceptible to fresh infection.

Pleurisy.—All wet pleurisies should be considered tuberculous; dry pleurisies, unless there is definite evidence they are of rheumatic, pneumonic, post-operative or traumatic origin, should be looked on as highly suspicious of tuberculosis. Influenza, lasting over three or four weeks, and followed by a

period of debility and loss of weight and strength, with or without cough should be looked upon with grave suspicion. Bronchitis, which lasts over a month, and is accompanied or followed by loss of weight, strength, etc., is open to suspicion as being of tuberculous origin.

The question of syphilis should be carefully gone into.

Pulmonary syphilis is not such a rare condition as has usually been supposed, and many a so-called consumptive has been cured by iodide of potassium and mercury.

To get as definite an idea as possible of when the illness began. Ask the patient, "When did you last feel perfectly well?" In many cases, the first symptom is found to be a constitutional one. An unexplained loss of weight is the most important, especially when combined with loss of strength and energy. Loss of appetite, a capricious appetite and all sorts of dyspepsias, variously diagnosed as hyperacidity, atony, hypmotility, etc., may be the first indication that a tuberculous focus is active somewhere in the body. Study the patient's temperature and pulse.

Combined with a loss of weight and strength and other suspicious constitutional symptoms, a slight afternoon fever up to 99.2 or 99.4 or a constantly subnormal temperature with rapid pulse (100-110, patient at rest) may be considered as almost pathognomonic of a tuberculous infection and justifies a positive diagnosis whether or not definite signs are found in the lungs. Pallor does not always mean anemia. Flushed and chilly feelings are frequently met with in the early stages of the disease; actual chills and night sweats are rare. Hoarseness, due to relaxation of the vocal cords and not to any tuberculous process, is not uncommon in delicate patients, and is an early symptom.

Menstrual irregularities are common. There is no typical cough of tuberculosis. Any cough which lasts over four weeks requires careful investigation and should be considered as strongly suspicious of tuberculosis, after ruling out other causes of chronic cough, such as enlarged tonsils, dry pharyngitis, etc.

A typical tuberculous sputum does not exist. Frequently, there is no sputum. When there is, it should always be examined microscopically. A negative sputum examination or even repeated negative examinations do not rule out tuberculosis. If the sputum is found positive, in the great majority of in-

stances, someone is to blame. Either the patient, through ignorance or carelessness, has not consulted a physician in time, or else the physician has been unable or unwilling to make an early diagnosis on the signs and symptoms then present.

Any hemorrhage from the mouth should be considered as definite evidence of tuberculosis until proved to be the result of some other process. In every case of obscure hemorrhage, examine thoroughly the nose, naso-pharynx and throat. In order to insure a satisfactory examination, every patient should be stripped to the waist in a warm room.

Inspection.—Note physical development, musculature and condition of the skin. Inspect the eyes, nose, mouth and pharynx. Inspect neck and axillæ for enlarged glands. In the early stages, there is no one form of chest particularly characteristic of this disease. Note general contour of chest, particularly as to asymmetry, and as to whether or not there is any lagging in the movements of one side compared with the other.

Auscultation.—This is of paramount importance in the diagnosis of early tuberculosis. This is the most delicate physical means we have of determining this disease. The chest should first be gone over with the patient breathing quietly and normally; then re-examined with the patient taking deep breaths and finally instructing patient to give a short cough immediately followed by inspiration and expiration. Bronchial breathing is usually absent in early cases. Rales or fine crepitations may or may not be present; often a cough will bring them out; often they are absent. While there is no auscultatory phenomenon which by itself is pathognomonic of tuberculosis, if, however, constant, localized rales are found at one apex or elsewhere, associated with constitutional signs and symptoms, it is justifiable to consider the case as one of tuberculosis and to treat it as such until the contrary is proved.

Perhaps the earliest abnormality to be detected by auscultation is a high pitched inspiration with or without interruption in it, followed by an abnormally prolonged high pitched expiration. In early cases, the pathological process is rarely such as to admit of any marked abnormalities in the vocal fremitus. A high-pitched, intense, whispered voice, along with other slight signs, is an abnormality of distinct appearance. Transmission of heart sounds, if to the right apex, is important; not if to the left apex. Tactile fremitus rarely gives much help in the diagnosis of early pulmonary tuberculosis. Tuberculin,

carefully used in proper doses and properly interpreted, is free from danger and may be of great value in the diagnosis of early tuberculosis; in the hands of those not skilled and experienced in its use, however, it can do much harm. The general practitioner will never find it an agent of much value except in the diagnosis of tuberculosis in young children; even here, a positive reaction by no means necessarily signifies that tuberculosis is the cause of the symptoms. In practically no case should a diagnosis be based on the result of a tuberculin test alone, without other confirming evidence nor should it be used until other means of making a diagnosis have failed. The X-ray plate or fluoroscopic screen may furnish valuable evidence of early tuberculosis in the lungs of adults, while in children it is the best means we have of finding enlarged bronchial glands.

THE RELATION OF THE HOSPITAL TO THE PROFESSION AND THE PUBLIC.

BY

D. P. MADDUX, M.D., F.A.C.S., CHESTER, PA.

THE hospital proposition is really a new one. It is such a new proposition that it was not until the year 1910 that the United States Government considered it worth while to collect and tabulate information in reference to the hospitals in its regular decennial census.

Complete information is not even now obtainable from this source; but an analysis of this record shows the following in reference to the hospitals in this State:

Previous to the year 1875 there were but thirty-one hospitals in the State of Pennsylvania. Between the years 1875 and 1900, ninety-two new hospitals were established in this State. In the first decade of the present century sixty-one more new ones were added. At the time of writing this the total number listed was 220; but as I have not to-day received the "Last Edition" I cannot tell the final score.

I would like to discuss this problem precisely as the title indicates. I would like to underscore and potentially emphasize the word "*Relation.*"

RECOGNITION OF THE RELATIONS THAT SHOULD EXIST.

Has our profession or has the public either recognized, or attempted to enforce the proper relationship that should exist between the hospitals and themselves? Have the lay and professional management of most of our hospitals attempted in any very serious and comprehensive fashion to consider how the relation of the hospital might at the same time be more expanded and more efficient? I fear not in any adequate degree.

In the minds of many a hospital is yet classified merely as a place to take a sick person who cannot be attended anywhere else. The duty of the lay management being to raise the money and the professional staff to give the treatment.

The original concept and relationship of a hospital was but in a slight degree removed from that of a hospice. It was a mere place of shelter and residence for those otherwise unprovided for. The earliest hospitals made little pretense of affording specially skilled professional treatment; such as was given was not as good as that attainable in a good private home. Sad to relate, there yet exist some institutions that are called "hospitals," to which the same fact might truthfully apply.

The modern hospital represents furnishing and equipment not attainable in any private home, except those of the very rich, who may at great expense temporarily convert part of their home into practically a hospital.

RELATION OF THE STAFF TO THE HOSPITAL.

But vastly more important than the mere physical equipment, it should be assumed that a modern hospital has the service of a staff of specially trained men; capable of rendering specially skilled service in the departments to which they are assigned.

It is a deplorable fact that in the consideration of this important if not vital hospital relationship, many boards of lay managers consider that they can create a specialist by electing him to the position of one. By parity of reasoning they consider when that relationship is officially established the man becomes a real specialist, and generally the man so elected regards himself.

There is a most dangerous tendency in many hospitals to elect some men having special influence or "pull" to the staff for the

special purpose of aiding the men so elected, rather than considering their special equipment for the office to which they are elected. This would be a less dangerous experiment if the early service as a member of the staff was under the tutelage of experienced men; but when, for instance, a man of no special surgical skill, experience or judgment is suddenly foisted by election of a lay board to the independent care of surgical wards, with no restraint as to what he shall or shall not operate, then we have established a very perverted and pernicious relationship.

THE RELATIONSHIP OF STAFF AND MANAGEMENT

The relation of the management and staff is such a delicate one, that I would perhaps show the part of wisdom by avoiding its discussion.

This much I am convinced of, the less the members of the staff have to do with anything except those things closely related to their professional duty, the better for the staff and the institution.

The more closely the management confines its activities and domination to the strictly business affairs of the hospital, the better for all concerned.

THE RELATION OF HOSPITAL AND PATIENT.

A patient has the right to assume when he enters the ward of a hospital that he will be placed under the professional care of some one having special proficiency in the condition for which he sought hospital care. The patient has the further right to assume that all modern, scientific methods will be employed to discover as completely as possible all that relates to the condition for which he was admitted. Unless this is done the relation of the hospital to the patient is an unfair one.

The relation of the patient to the hospital is also manifestly unfair upon his part, when he obtains admission as a free or part pay patient, when able to make full payment.

While, of course, the hospital is disposed to give to the patient the benefit of the doubt and accept his statement of inability to pay upon its face value; yet if a hospital admitted all such patients upon a tentative plan, the final financial adjustment being dependent upon obtaining the complete facts, much

money would revert to the hospital treasury now lost. We hear much of the dispensary abuse, but the hospital abuse is a close second.

It is also a manifest injustice to permit a patient to be classified as a "pay patient" by the payment of \$1.00 per diem when the cost of his actual maintenance may be double that amount. The attending physician or surgeon should not have the right to ask or collect his professional fees from the patient in the hospital until that patient has paid the actual cost of his keep.

THE RELATION OF THE HOSPITAL AS A CENTER OF SCIENTIFIC RESEARCH WORK.

The hospital should be more universally related as a center of scientific research work. This implies an earnest, active staff, dominated by the scientific spirit, the possession of adequate physical equipment, some specially trained persons to do the special scientific work, the uniform employment of scientific methods, and the collection and correlation of clinical and scientific data in an accurate fashion and of ready access.

I hear some say, "Oh, yes, that's all very fine, but our hospital has not the money." As the result of a personal inspection of a very large number of the hospitals of this State, I have formed the very pronounced opinion that when the scientific spirit really dominates the staff, the other elements are soon secured.

Some of the hospitals inspected were entirely lacking in the most ordinary scientific equipment because the members of the staff had made no effort to secure them. Other very deficiently equipped hospitals were deficiently equipped because the management had found that the staff did not utilize even that available.

Some of the members of the staff may be the most capable, efficient and scientific men; but if the dominating and controlling membership of that staff is composed of men who are not in active, practical sympathy and accord with scientific methods, the proper relation and results will not be attained.

I hear some old fellow, who graduated back in my time or before, say, "The homœopathic prescribing is based more upon the clinical provings of drugs in the healthy humans than upon laboratory experimentation. We do not need the laboratory equipment of the Old School." Mind you, I said that this re-

mark must have been made by some "old fellow," the recent graduate never entertained such foolish notions.

I want to point out here a much neglected field of work as applied to the hospitals of our own school. I refer to the laboratory confirmation of our special form of therapy.

However well proven from the viewpoint of clinical observation may be the efficiency of homœopathic therapy, confirming and conclusive demonstration of that fact should be made by laboratory methods to a much greater degree than now obtains.

The amount of valuable clinical and scientific data that is permanently lost through the failure of most hospitals to follow strictly scientific methods is beyond computation.

Because of the modest or no charges made by the pathologist directly to the patient, the patient does not recognize the extreme importance of obtaining a laboratory opinion. Because so many of our physicians are lax in insisting upon laboratory findings, patients may feel that it is almost an ultra refinement if not an imposition to place this additional expense upon them. To secure the proper relationship in this department, the members of the staff who are alive to the importance of uniform laboratory investigation must make a greater pressure upon those who neglect it. The uniform employment of laboratory methods, and the uniform charge to patients who can afford to pay, that charge arranged for and paid in the office, will largely help to solve the financial part of the problem.

If clinical and scientific data were filed according to an approved system, if universal nomenclature was employed and the records properly cross-indexed, it would make each hospital a separate fountain-head of information and the sum total from the hospitals of this State would be incalculable.

The holding of autopsies whenever attainable, the conducting of those autopsies in a more complete and scientific fashion, with all of the physicians of the community privileged to witness them would establish a valuable scientific relation.

THE HOSPITAL IN RELATION TO ALL THE PHYSICIANS OF THE COMMUNITY.

The local hospital should be related as a teaching center to all of the physicians of the community in which it is located. Have our local hospitals developed what should be the normal

relationship towards the physicians of the community who are not members of the staff? I think not. Would there not be created an all-round greater efficiency if all of the physicians of the community had the opportunity of witnessing those special procedures and methods that can only be best employed in institutional treatment?

While the specially trained members of the staff might be considered as the only proper persons to make the demonstration, yet a vastly wider service would be rendered if all the local physicians were privileged to witness them.

The hospital should not be regarded as a close corporation. Its clinical facilities and physical equipments should be employed to the educational advantage of all physicians near it.

This "show down" will accomplish two valuable purposes. Not only will it be informative to those not having official position in the hospital, but it will prove highly stimulating and helpful to those on the staff if they are conscious that their work is the subject of observation and criticism.

It will help make the good men better, and may help in getting the inefficient one out.

The appointment to a position on the staff of a hospital is a trust, not a sinecure.

THE RELATION OF THE HOSPITAL AS A COMMUNITY ASSET.

The relation of the hospital as a community asset, in reference to its availability in teaching public hygiene and preventive medicine is not yet established in an intimate and effective fashion that modern needs demand.

Hospitals should articulate with the local boards of health. In those communities not having municipal laboratories, a regular and systematic laboratory examination of the milk and water supply should be made in the local hospitals.

Think of the sickness and even lives that would be saved by an early and exact information of the bacterial content of water and milk. Think how nutrition might be improved if the exact amount of butter fat and other ingredients of milk could be promptly and precisely determined.

Local hospitals should be both equipped and available for the scientific investigation of infectious diseases. A more liberal proportion of the money appropriated by this State to the hospitals should be employed in work of this character. The hos-

pital should make its prophylactic as well as its curative contribution to the community in which it is located.

When our hospitals have more amply demonstrated the value of their contribution in this respect, when they become recognized as being a real bulwark against the invasion of disease, rather than alone regarded as a place of refuge after the invasion of disease has occurred, then a new and better relation will have been established.

THE HOSPITAL IN RELATION TO THE INTERNE.

A new and most responsible relationship is now sustained by every member of the staff of every hospital receiving an interne who desires to subsequently practice medicine in this State.

Each man on the staffs of these hospitals is an official member of the medical faculty of this State. It means, or should mean, each staff member has the direct personal responsibility, as one of the post-graduate teachers recognized by this State, of imparting the needful instruction to the interne assigned for post-graduate work to the hospital with which he is associated.

It means that an interne can no longer be treated as a high grade orderly. It means that hospitals must not consider primarily how much they can get out of the service of the interne; but how much they can give to the interne in service and instruction.

I am publicly expressing the attitude of the Bureau of Medical Education and Licensure of this State in saying that those hospitals that do not fulfill properly their duties in the post-graduate year of medical training, will not be regarded as eligible to receive an interne to train.

At the risk of being tiresome and tautological, I want to re-emphasize this new relationship. I want the men on the hospital staffs to keenly feel that they are an integral part of the system of medical education as adopted by this State. The part sustained by you gentlemen is just as essential in obtaining the license to practice medicine as the years in medical colleges.

I appeal to you, who are on the staffs of hospitals receiving internes to take this new relationship most seriously. I appeal to you to live up to your legal requirements. Be real clinical teachers. Take the time, take the trouble to explain the reasons for the doing, as well as the practical applications of the work done. Do not merely permit them to watch you operate, but

explain the reasons for operating; demonstrate the applied anatomy and technique. Let the interne feel that you are willing and desirous of helping him. Let him act as your first assistant, coaching and explaining as you operate. As the interne becomes experienced, you act as his assistant in those operations that you regard him as competent to perform under instructions. I have found as much interest, pleasure and profit in standing on the "off side" of the operating table coaching an interne as I have found in individual operating; at the same time it requires infinitely more alertness and conscious attention to details, because of the things that the operator has unconsciously trained himself to do automatically; he must be alert to secure to the interne the foundation for a similar proficiency.

On the medical side, do not stop at merely making a prescription, but discuss and explain your reasons for making the same. Take up the points in diagnosis, prognosis, dietetics, etc., with the interne. Seek to get the interne's own ideas upon these subjects; they may be better than your own; then modify them as riper judgment and experience have taught you.

Prominent medical educators have urged as an objection against an official year of medical training being obtained in any but the hospital college, the fact that many of the smaller hospitals do not afford the adequate degree of laboratory and scientific training that a new graduate should have. This objection rests upon a considerable basis of truth.

The young man, just graduated from a medical college, has been taught certain methods of scientific investigation that represent the last word in medical teaching. If that young man sees older men, of well established local reputation, not employing those methods, indeed seeming to pay little or no regard to their importance, the young man is apt to leave that kind of a hospital rather indifferent as to whether he employs scientific methods himself when he enters independent practice. He may lose the keen zest he had on graduation of always seeking for scientific truth and accuracy. If he follows the examples set in some hospitals, he will be complacently satisfied with prescribing compound tablets and even proprietary medicines.

Members of the hospital staffs, fully realize your new responsibility; fully recognize what this new relationship means and meet it. I appeal to the staff members here present to try and transpose their own feelings to the period when they were re-

cent graduates. Try and think of how obscure and hazy certain things were to you when the ink on your diploma was not dry, and how now that the ink is faded those same things seem so obvious and self-apparent. Won't you give to the student-graduate that the State has entrusted to your hospital to train the full benefit of your practical experience.

Perhaps if you get right close to him it may prove a valuable post-graduate course to you as well as to him.

THE HOSPITAL AS A POST-GRADUATE SCHOOL OF TRAINING FOR ITS OWN STAFF MEMBERS.

I am impressed with the fact that the clinical material and scientific equipment of even our smaller hospitals are not used as efficiently as they might be in providing what should prove a very valuable post-graduate course of training for its own staff members.

The more frequent and intimate conferences of the entire staff, in which matters of scientific import were considered, the closer relationship of each department to every other department, the holding of teaching clinics, the demonstrations of laboratory and X-ray methods and findings would all furnish a valuable course of post-graduate training.

Perhaps the recital of failures, the frank confession of not attaining the anticipated results from methods which had been advocated, might prove of even greater value than a demonstration of success.

The point that I desired to emphasize is that a position as a member of a hospital staff should carry with it the inclination on the part of that member to utilize his facilities and opportunities to increase his own store of medical knowledge, at the same time the relationship of all staff members should make the hospital a real post-graduate school.

Think over this entire hospital proposition anew.

Go back to the hospitals with which you are individually associated and see what you can do to widen and improve its relations to the topics considered.

DISCUSSION.

I. D. METZGAR, M.D., Pittsburgh: I have been very much interested in this paper, for several reasons, the chief is possi-

bly the fact that the Bureau of Medical Education and Licensure has been required by the last Legislature to investigate each hospital receiving State aid, to see whether the hospital has been doing efficient work. Up to this time the amount of appropriation that a hospital received from the Legislature was dependent upon the amount of charity work done by it. The question raised before the committee was always as to the number of cases handled during the two years for which the appropriation was made, and little more was asked concerning the hospital itself. The present Governor and Legislature, however, felt that this was not the right method for judging the value of a hospital, therefore there was placed on the Board of Medical Education and Licensure the task of inquiring as to how well the hospital had done its work; and this has been a most interesting duty.

There has grown up during the last twenty-five years a large number of hospitals, especially in the smaller communities, whose primary work was to take care of the accident cases of these districts. A certain number of these cases could not well be taken care of in their homes, so the community was induced to raise sufficient funds to build and maintain a hospital. If they did not have money to maintain it, they would ask the State for assistance, which the State, in most cases gave. This meant that the State was nurturing this hospital, and therefore, had a right to inquire into its activities. Just as the State appropriates money for maintaining the public schools, and therefore has the right to inquire into the work done in them, so with hospitals receiving assistance from the State, the State has a right to inquire into the kind and character of work done there.

The efficiency of the hospital now becomes one of the chief problems as to its value and claim for aid. In order to be efficient, the hospital must have all the equipment necessary for the investigation of each individual case under its care. The smallest hospital should be equipped so as to do as good a service for the few patients as the large hospital is equipped to do for the many cases that it may have. If a small hospital calls for an appropriation from the State, it assumes the obligation to establish in itself such equipment and accessory appliances, as well as such a staff, as would equal one of larger proportions in the things that make for safe and efficient care of those patients who enter its portals. Now, we have found that this is not the case, but that the majority of the several hundred hospitals within our commonwealth have been but mere infirmaries and not hospitals at all. They have been institutions into which the

surgeon might take his case and operate upon it with but slight inquiry as to whether the patient actually is in proper physical condition to be operated upon. Even urinalyses were not made in many of these hospitals before operation, much less, blood counts, and the many other investigations which should be made before putting the patient upon the operating table.

The hospital was established, primarily, for the purpose of taking care of the patient that could not be taken care of in the home. Formerly, when the home was well appointed, the operation was usually done there; but now the time has come when everyone considers the hospital the safer place for operations, or even for medicinal treatment. The hospital was first established with wards alone, for the care of the poorer people, but now the cry comes for additional private rooms, and the public funds are sought for in the quest to meet these modern demands. We believe that the community itself should attend to the establishment of these private rooms, and the State should appropriate money for the care of the poor people only.

Dr. Maddux has said that the hospital regime should be so arranged as to make it a teaching institution alike to internes and the profession. This has been sadly neglected in most communities. Frequently, only few of the medical profession in the district had access to the hospital, and it could not easily become a center for teaching. Generally, the facilities for this were lacking. Frequently, there was no autopsy room, and in some hospitals there existed not even a morgue, so that the patient was left on the bed in the presence of the other patients for hours after death. No place existed in which post-mortem examinations could be made. Had such a room been provided, it is doubtful if much effort would have been made to utilize it. In the foreign hospitals, much value accrues from these autopsies. For instance, every fatal case coming into the hospital of the University of Vienna is brought to autopsy, providing it is a charity case; and every private case in which there could be no definite diagnosis.

This causes the simple symptoms that to the average physician, mean very little at the time of illness, to become very important afterwards; because these simple symptoms are those which indicated the disease that caused the patient's death. Persons who watch or perform the autopsy are impressed with the value of these especial symptoms and remember them in future efforts at diagnosis. The physicians of every community that has a hospital ought to have the advantage of this post-graduate study.

When it comes to laboratory accessories, they have been found to be inadequate in many cases. The Bureau of Medical

Education and Licensure has asked that the managers use the money of the State for the purpose of securing these. They said, "If we do so, we shall have no money for the patients." The Bureau replied, "The primary purpose of the appropriation is to make the hospital efficient. Use the money for that purpose, and afterwards you will be more justified in asking for more money to care for the patients." The response to this order has generally been prompt. In most cases, managers have secured these and the staff members have been ready to use them. Others will soon see the advantage of this and follow suit.

These remarks apply to all hospitals of our State. We found that the majority of homœopathic hospitals were fairly good, some exceptionally so. However, all need to seek further improvement. The purpose of these investigations is not to be critical, but to be constructive and helpful in aiding hospitals to secure the best conditions. Remember that the primary thing to be emphasized in any effort at hospital improvement is efficiency—efficiency in the service it renders to its patients, in the management of its funds, in the opportunity it offers its internes and physicians for further professional advancement, and in its contribution to the health of the community. Then we shall have real hospitals and no longer temporize with mere infirmaries.

A SIMPLE TECHNIQUE FOR RESECTION OF THE PROLAPSED RECTUM.—G. W. Brock, *Surg., Gynec. and Obst.*, 1916, xxiii, 225.—The operation is a modification of the Mikulicz technique. The modification of the Mikulicz consists in introducing into the prolapsed part a round piece of wood, as the end of a broom handle which has been sawed off and properly sterilized.

The gut is held in place over the wood by tying the neck of the prolapsed part outside of the anal margin with kangaroo tendon or light rubber tubing.

An incision is then made across the front of the prolapse one-half inch below the ligature. Open the retro-vesical pouch and replace any pelvic viscera.

The clean peritoneal surface is sutured using a continuous suture suturing the inner cut edge of the outer gut to the outer wall of the inner.

Carry the incision entirely around the outer prolapsed tube and resume the continuous stitch.

Amputate the mass by cutting the inner tube off at the same level. Suture the two cut mucous edges. Put the bowel at rest for a week or two.

The advantages are the ease and simplicity and haemorrhage is constantly under direct control.

DEEP ALCOHOLIC INJECTIONS IN THE TREATMENT OF NEURALGIA OF THE FIFTH NERVE.

BY

H. L. NORTHROP, M.D.

(Read before the Germantown Medical Society, Philadelphia, and the County Medical Society of Westchester County, New York.)

THE fifth trigeminal or trifacial nerve, the largest of the cranial series, is more frequently the seat of severe neuralgia than any other nerve in the human body. This is due, of course, to its numerous branches, their superficial position and termination in the skin of the face, as well as the ease and frequency with which these branches are irritated by carious teeth, eyestrain, exposure, etc.

One of the characteristics distinguishing trifacial neuralgia from almost all other pains involving the head and face is the brevity of the pain. The paroxysms are of short duration, but they may come frequently. Another diagnostic point is that the pain may be started by very slight irritations about the face by eating, drinking, talking, brushing the teeth, washing the face, etc. An attack can be precipitated by lightly wiping the face with a wisp of cotton. Another peculiarity is that wiping the surface in the area supplied by one division may start the pain in another division. Patrick says that there is no known cause of trifacial neuralgia, although local infections and irritations in the area of the fifth nerve may have something to do in originating the disease. He states that it is a distinct clinical entity. The pathology is unknown.

To serve my purpose in mind, I will refer to a few points in the anatomy of this nerve. The fifth nerve is the great sensory nerve of the face, and it is also motor to the muscles of mastication. On the sensory root is to be found the Gasserian ganglion, situated near the apex of the petrous bone within the cranial cavity. Three divisions or cranial branches proceed from this—the ophthalmic, which leaves the cranial cavity by the sphenoidal fissure and enters the orbit to supply its contents and to emerge upon the face around the orbit; the maxillary division, which passes out of the cranial cavity through the foramen rotundum, crosses the sphenomaxillary fossa and then traverses the floor of the orbit to supply the teeth of the upper jaw and to reach the facial surface; and the mandib-

ular division, which makes the exit through the foramen ovale and then divides into the auriculo-temporal, buccal, lingual and inferior dental branches. These three divisions reach the anterior part of the face by way of the supraorbital, the infraorbital and the mental foramina respectively. The ophthalmic division conveys sensation from the vertex, forehead, brow, upper eyelid and dorsum of the nose; the maxillary division, from the lower lid, cheek, side of the nose, upper lip and teeth of the upper jaw; while the mandibular division conveys sensation from the temple, the teeth of the lower jaw, the side of the face and the area covering the lower jaw and chin.

This resume of the anatomy of the fifth nerve should help us the better to understand the surgical treatment of this intractable neuralgia.

The etiology covers a wide scope of possibilities. The disease occurs most frequently in persons of middle life, who usually are in good general health. They are not necessarily neurotic, and heredity plays no part as a cause. Arteriosclerosis, of a marked degree, is said by some to be present in many of the cases. This is denied by others. The teeth, perhaps carious, or in many cases perfectly sound, are commonly suspected and are sacrificed without any beneficial effect upon the pain. Syphilis, as a systemic disease, or by producing a periostitis about one or more branches of the fifth nerve at their foramina of exit from the cranium, or in their passage through the bones of the face, or by producing a basal meningitis, may act etiologically. Diseases of the mouth, such as pyorrhea or sinusitis, involving the maxillary antrum, the frontal, ethmoidal or sphenoidal sinuses, must be included in this category. The neuralgia may be a part of multiple neuritis, or it may be due to a malarial infection.

At least one small volume could be written upon the homœopathic treatment of this affection alone, and the same could be duplicated on the use and value of coal-tar preparations, analgesics and local applications.

Cowperthwaite refers the homœopathic prescriber to seventy-four different drugs in the treatment of neuralgia; Boericke adds seven more. From this rather formidable array of therapeutic talent I would select aconite, aconitin, belladonna, gelsemium, mercurius and spigelia as drugs more frequently specifically indicated. To what extent these remedies give relief, or what degree of cure they accomplish, I must let the

general practitioner and neurologist decide. Speaking for myself, I have had quite brilliant success with one or another of the remedies just mentioned, particularly when the neuralgia is of the acute variety. I believe that aconitin is a much-abused and too-much-used drug, and often gives disappointing results. Like almost everything else administered for trigeminal pain, it plays out after awhile and the suffering returns with renewed fury. All drugs lose their effect rapidly, the physician and the patient lose heart and in desperation resort to morphia. It is no wonder that many sufferers from trigeminal neuralgia are dope fiends.

If the drug treatment of neuralgia of the fifth nerve presents such a pessimistic picture, what can be said of the surgical treatment? Summed up, surgical treatment gives results which are good, bad and indifferent. It consists of peripheral operations, which may be regarded as palliative, and of the extirpation of the Gasserian ganglion, which gives permanent relief in most cases, if the patient survives the operation. Peripheral resection of the supraorbital branch of the ophthalmic division is performed at the supraorbital notch and beneath the roof of the orbit; resection of the infraorbital branch of the maxillary division is done at the infraorbital foramen and in the canal within the orbital floor, or the entire second division is resected by attacking it in the speno-maxillary fossa, usually reached by cutting across the maxillary antrum from in front (a brutal operation); while the mental branch of the mandibular division may be avulsed at the mental foramen, or the inferior dental nerve may be resected by trephining through the ramus of the mandible. The lingual nerve is easily resected in the floor of the mouth just beneath the mucous membrane between the last molar tooth and the side of the tongue, an operation sometimes performed to relieve the intolerable pain of cancer of the tongue.

These resections usually give freedom from pain for a few months to two years. Occasionally a patient will be relieved for three or four years, and some cases of cure have been reported. Three or four peripheral operations are often performed on the same patient, one division after another requiring resection as the neuralgia spreads and involves the different trajectories of the fifth nerve.

The extirpation of the Gasserian ganglion, first performed by Rose in 1893, is more likely to give permanent relief than

any other surgical step, but it is a dangerous and difficult intracranial operation, owing to the location of the ganglion and the possibility of hemorrhage from the middle meningeal artery. In one published series of two hundred and one operations, seventeen per cent. of the cases died as a direct result of the operation. Garré and Friedrich each report a case of Gasserectomy where the pain returned on the same side operated upon. From personal experience and from cases I have observed in the hands of others, I conclude that removal of the Gasserian ganglion even as a means of relief is an operation to be condemned—one that is not worth while.

In 1897 Bennett of London suggested and practised the injection of a one per cent. solution of osmic acid into the offending nerve, first having exposed the nerve. The object is to destroy the nerve by causing in it a degeneration of its fibers. Fibrosis follows and regeneration is supposed to be impossible. Murphy seems to favor the method and injects 5 to 10 minims of a two per cent. solution of osmic acid into several parts of the nerve. But this treatment has not grown in popularity, probably because a cutting operation must first be performed to expose the nerve trunk, when a resection is easy and would seem to be the more logical procedure.

Byrnes of Baltimore states that a single successful injection of alcohol into the Gasserian ganglion is followed by immediate relief of pain and all the symptoms indicative of complete physiological destruction of the ganglion. When applied by experienced hands, this form of treatment is without serious risk. Byrnes has treated fourteen patients. Six patients who were treated more than a year ago are still free from pain, the longest period of relief being eighteen months. Four patients treated within the last twelve months of this period have had no return of pain.

Experiments begun by Schlösser in 1900 showed that an injection of 1 or 2 c.c. of eighty per cent. alcohol into a sensory nerve will cause, after a brief attack of pain, complete numbness and anesthesia which, in the course of a week, will disappear. Then, queerly enough, normal sensation returns, but not the pain. The nerve always recovers its normal state and function, but the pathological irritability disappears for a long period of time, thus insuring subsidence of the neuralgia. In the treatment of neuralgia Schlösser advises a second injection

in twenty-four hours, to be followed within the next few days by a third and even a fourth.

Because of the satisfactory results and the simplicity of the method, it has supplanted other forms of treatment to a very great extent. The pathologic effect is the production of a local necrosis and fibrosis, which do not spread or ascend along the nerve and from which the nerve later recovers. This means, of course, that the cure is not permanent, but the injection may be repeated at any time and as often as necessary. Relief is usually obtained for a period of several weeks, months, or even a year, and the recrudescence is generally milder than the original attack. The method may be recommended in all subjects, and should be urged in those who are old or feeble and where a peripheral operation is contraindicated or refused.

There are two routes by which these nerve divisions may be reached at the basal foramina: one is designated as the intrabuccal and the other as the extrabuccal route. By the former, Schlösser and his pupil Ostwalt claim to be able to reach all the nerve trunks with one insertion of the needle, thus obviating the multiple external punctures of Levy and Baudoin. But the intrabuccal method is not considered feasible in the hands of the majority, while the weight of clinical evidence is overwhelmingly in favor of the external route.

For the inferior or mandibular branch of the fifth nerve, the needle is inserted at the lower border of the zygoma, 2.5 cm. in front of the descending root of the zygoma, which can always be felt, and which coincides with the anterior bony border of the external auditory meatus. (Murphy introduces the needle at the upper margin of the zygoma.) The needle is directed slightly upward (slightly downward, *a la* Murphy) so as to hug the base of the skull, and a little backward and at a depth of 4 cm. it should impinge upon the nerve at its exit from the foramen ovale.

To reach the foramen rotundum for the middle or maxillary division, take the posterior border of the external angular process, pass down to the lower border of the zygoma, and insert the needle .5 cm. posterior to this point. If the needle meets a bony obstruction promptly, near the surface, it is the coronoid process of the mandible, and the needle should then be inclined slightly forward; if it again meets bone at a deeper level, it is the posterior border, or tuberosity, of the maxilla,

and the needle should then be directed slightly backward and upward. The nerve should be reached at its exit from the foramen rotundum at a depth of 5 cm.

At the present stage of development of the method it is probably wise to be satisfied with injecting the supraorbital branch of the ophthalmic division for pain in this area. This is easily done at the supraorbital notch. There is so much uncertainty in attacking the ophthalmic division in the vicinity of the sphenoidal fissure, and the risk of puncturing the ophthalmic vein is so great, that treatment of "brow pain" should be confined to injection of the supraorbital nerve at the notch, and no effort should be made to reach the nerve or division farther back.

The technic is as follows: Alcohol is the remedial agent, and may be used in varying strengths from 70 per cent. to 80 or 90 per cent. Eighty per cent. probably serves best in the majority of cases. The quantity to be injected must be decided by the individual case, and varies from 10 minims to 2 c.c. Patrick uses a special formula, viz.: 2 grains of muriate of cocaine, $2\frac{1}{2}$ drachms of alcohol, and distilled water sufficient to make $\frac{1}{2}$ ounce. The dose of this is 2 c.c. I cannot see that this mixed solution possesses any advantages over the straight alcohol alone. No local anesthetic is required, as the patient is so accustomed to feeling pain that the introduction of the needle adds but little suffering to that which is then and there being endured.

When the point of the needle comes into contact with the nerve increased pain is felt throughout the trajectory of the nerve, serving as a guide to the operator that he has reached the right spot.

A special needle should be employed, such as the Patrick needle (so called in this country, but identical with the Lévy and Baudouin needle in France), which is made of steel, is graduated in centimeters, and is provided with two stylets, one with a blunt and one with a sharp point.

Following the entrance of the alcoholic solution into the sheath of the nerve there is a sense of numbness and formication referred to the peripheral distribution of the nerve, along with a cessation of acute pain if such were present.

Some neurologists are in the habit of differentiating between neuralgia and neuritis of the fifth nerve; they are also making X-ray examinations to determine, if possible, the existence of

bony defects or deformities (a thing which, to my mind, cannot be done at the present day with any great satisfaction), which, of course, could not possibly be removed by injections of alcohol. My position is this: No matter what the cause of the pain, if it can be accurately located in one or several of the branches of the fifth nerve, and if the irritability of that nerve can be removed more or less permanently, so that the pain will not exist, the treatment to accomplish such a result should be employed.

Moorehead of Chicago says: "I have never seen a case of trifacial neuralgia that was due to a demonstrable lesion of any sort." He further says that the peripheral operation is to be condemned and that when all is said and done and the treatment of trigeminal neuralgia is reviewed, alcoholic injection is the best, because it is simple, is not accompanied by any danger to the patient, can be done in the office, and is not especially painful.

I suppose I have had my share of cases of tic, which I submitted to nerve resections with, I must confess, the usual temporary relief and subsequent relapse. I have, furthermore, injected several supraorbital and inferior dental nerves with osmic acid, 2 per cent., the results of which have been quite satisfactory. Of course the nerve had to be exposed to permit of the injection.

My personal experience with deep alcoholic injections in the treatment of trifacial neuralgia has been very gratifying. The first case that I treated, more than a year ago, remained free from all pain for six months, when the injection had to be repeated, with complete relief again. In two other cases there was only partial, temporary cessation of pain, and the treatment had to be repeated at the end of a week. In one of these cases just referred to I found it necessary to give a third injection before the pain was controlled. Where there is but partial relief and an early relapse, I believe that the nerve has not been properly, accurately reached; that the alcohol has been deposited in the vicinity of the nerve but not within the neural sheath, where it is supposed to go. I am pleased to state that the injections I have made into the second division, at the foramen rotundum, have been especially successful in controlling the pain in the trajectory of that division.

Although the operation is spoken of as a simple one, I am persuaded that it should be performed carefully and intelli-

gently, with every possible attention to accuracy. Undoubtedly practice and experience will make for perfection in this matter.

Up to date I have injected the supraorbital nerve with alcohol twice; the second or maxillary division, at the foramen rotundum, four times; and the third or mandibular division, at the foramen ovale, fifteen times. All of the cases but one have been promptly relieved for a period varying from one week to six months. One woman of advanced age, a sufferer for years, who had been injected seven times by other Philadelphia surgeons without any benefit, was completely relieved by my first injections into the second and third divisions, and remained entirely free from pain for four months, when it returned with considerable severity. I then repeated the injections twice, but failed to make any impression upon her neuralgia. A final effort, however, was again successful, this time in conjunction with the administration of aconitin. The cause of this failure, after such a brilliant performance four months previously, I cannot understand.

It is rather odd that the neuralgia in all my cases so far has been right-sided. Tiffany, Tinker and Spiller have collected the records of 135 cases of trigeminal neuralgia, in which the affected side was stated in 72, of which 58 were right- and only 14 were left-sided. Thus we see the disease possesses marked unilaterality, with a preference for the right side.

So far I have seen no complication or untoward result follow this treatment, though in one of my cases, after injecting into the foramen ovale, there was a moderately free hemorrhage from the point of puncture; it was easily controlled by pressure. In the same case just quoted, a circular, superficial necrosis of the scalp, as large as a quarter, in the upper temporal region, developed a few days after the treatment. The necrotic area healed quickly.

Cushing, at the Congress of Surgeons in Boston last October, spoke of paralysis of the abducens nerve as an occasional accompaniment of the deep injections; Lévy, in twenty cases, had two paralysees of this nerve, which disappeared in a few days. The absence of paralysis after injecting patients is contrary to the observations of Finkelenberg in his anatomic studies of the effect of alcohol, saline and cocaine solutions on animals. In animals paralysis was the rule, and it is hard for him to understand why the human patient should be exempt.

There is no question about it—the superiority, the simplicity and the success of deep alcoholic injections in the treatment of neuralgia of the fifth nerve must be acknowledged. For obvious reasons it is a better method than any cutting operation. Not one of my patients has hesitated or demurred for an instant to submit to the initial injection, or to have it repeated the second or even the third time. I am convinced that time and experience will still further establish the value of the method.

THE SUICIDAL MANIA: ITS CAUSE AND SUGGESTIONS FOR THE REMEDY.

BY

H. E. WILLIAMS, M.D., COATESVILLE, PA.

(Read before the Chester County Homoeopathic Medical Society, July 13, 1916.)

STRAHAN says, "Suicide is an effect of that universal and complex influence to which we give the name of civilization."

There is no other subject which is of such supreme importance to the social structure of the community, next to the destruction of *other* human lives, as that of *self-murder*. This crime, as crime it is against nature, is so inexplicable, so mysterious, so at variance with the natural propensity inherent in every human being to preserve his organism from destruction, that it demands a careful investigation to discover the causes which impel human beings to override the all-prevailing natural law of self preservation.

The love of life is a principle that is powerful in every animate structure, and the desire to preserve it is the ultimate of conscious existence. It is *that* principle which underlies all human effort, the foundation, as it were, to the building of a home with all its surrounding comforts. It is the superstructure upon which rests all efforts to acquire fame and fortune. It is the incentive for all that is best for human activity. It gives direction to thought and emotion, to the end that the individual once evolved, may be preserved to fulfill the destiny allotted to each. That desire for life's preservation is, as it were, burned into the inner consciousness, into the brain of every normal individual, human, animal or insect.

The question is, What power interferes with this all-pervading natural law? What has so changed the consciousness of

the individual that the law of self preservation has been suspended? What is the primary cause of suicide? The taking of one's own life differs radically from every other form of homicide, in that every other murderous deed, that is, the destruction of other human life, has back of the act a natural motive to impel it; it may be lust for gain, power, revenge, jealousy or other passion. It is therefore considered that other homicidal acts have a natural impulse to instigate them, or by which the aggressor may justify his action; but the suicide not only evades obedience to, but acts in defiance of the strongest motive in nature, i. e., the desire to prolong life.

Before taking up the argument it will be wise to note the alarming increase of suicides as noted in the Census report of 1910. The increase of population from 1890 to 1900 was 8.33%, the increase in the number of suicides was 10.31%. From 1900 to 1910 the increase in population was 10.25%, while the increase in the number of suicides was 16.45%. A remarkable fact is that so many young persons commit suicide. Fifty years ago it was practically unknown among children; now it is so rapidly increasing, that an additional column has been added to the Census reports for this particular enumeration. It is intimated in the report that many cases of children found dead may have been suicides and reported as accidental, which seems probable when the many cases of found dead are reported, as among all ages they outnumber the reported suicides.

Another remarkable fact to which attention is called, "Why do more girls than boys commit suicide?" In answer we submit a problematical theory: While the chances at birth, that just as many boys as girls are born with gloomy, despondent natures, yet, as the environment of boys is freer, more exciting, their associations not so restricted, it has a tendency to retard the spirit of despondency, which may be as strong in one sex as the other. The girls are more secluded and environed by social customs and habits. There is more opportunity for the normal brain to expand, until both arrive at an age when the increasing cares and worries of business burden the man, and that depressing influence grows more powerful day by day and month by month, until middle age, when the males are in the majority. To get a clearer comprehension of the question, it will be necessary to consider the various theories advanced to explain the cause of the suicidal act. One of the latest was in a medical

journal, wherein the writer says, "I have examined the bodies of 18 suicides, and in *every* instance I found intestinal worms. I, therefore, conclude that suicide is caused by mental depression produced by worms." The inference is that worms and not a weak brain is the cause of the mania. The worm lozenge business would certainly receive a big boost if that writer could prove his conclusion to be correct. Other theories are: Climate, latitude, religious zeal, alcohol, tobacco, environment, and disgust at the emptiness of life. One scientist, Moricelli, says, "Since humanity must pay its tribute every year as the actual conditions remain permanent, the motives or causes are regularly and constantly the same for men and women, young and old. We find they are produced by the law of average, nature and other differences." The law of averages like the law of chance, is assumed, it is a fiction of the intellect, it is opposed to normal conditions, nor is it natural. "Other conditions" are too vague to consider. We will consider these theories, passing without comment, worms, environments, also Moricelli's theory and take up the idea of religious zeal as a cause. France which is more thoroughly Catholic than Ireland, has 216 yearly suicides to the million inhabitants; Ireland has only 24. Protestant England has 74, and Wales, also Protestant, has 37; the Jews vary with the country they live in, from 10 to 140 per million. The religious aspect is discussed later on. The drink habit is given as a cause. Sweden, whose people drink more strong liquor per capita than any other nation, has 101, while France, proverbially a sober nation, has 216, the Irish 24, the English 74 to the million.

Latitude, another cause given, has no effect whatever. Scotland and Denmark, in the same latitude, was 48 and 265 respectively. Spain and Finland, 19 and 35, Ireland and Prussia, 24 and 168. High latitude in Sweden, 101, low, in sunny France and Italy, 216 and 44. As to weather being a factor, there is nothing to sustain it. Along comes a writer who says, "Suicides are caused by the degeneration of humanity because of ancestral agencies; strains of evil which have been developing for centuries. Through heredity, every human being carries the ideas of his ancestors, unconscious of it and but dimly recognized"; and the writer adds, "It is a curse from which we can not escape." But there is nothing to sustain this assumption. The causes noted have a semblance of truth, but the following shows how an observer may be misled. In one small city there

were five cases in succession in a comparatively short period. One death from a bullet was charged to dissipation, another poisoned himself at the grave of his young wife—this was charged to infatuation. Next a poor recluse cut his throat—given cause, dementia. A well-to-do citizen hanged himself—no cause given. The last, the wife of a wealthy citizen, drowned herself—cause given said to be queer at times, out of her head. These causes are not the fundamental ones; they are merely contributory, the victim's acts made the excuses opportune for a superficial observer.

We add one more given cause for self-murder: "There is a lack of proper education, there should be more religious instruction to overcome the morbid and abnormal condition of the would-be suicide." Granted. But that would be a case of "first catch the hare before it can be cooked." How would a teacher proceed to select out of a class, those who may be inclined to self destruction and then instruct them about a natural law which is of itself stronger and more powerful than any other principle in nature? How to pick out the candidates would puzzle the wisest. One prominent writer charges the mania to a devitalized ancestry; but this will not pass muster. The records show that out of 100,000 idiotic and feeble minded children, 89,000 were among homes of rich and well-to-do parentage, whose ancestry is of the best, and are not the progeny of outcasts. Suicides as well as the above classes are born defective, but to charge it to a defunct and long-forgotten ancestry is not reasonable or scientific, without proper evidence to sustain it. The question arises: What effect, if any, have the two great systems of Christian religion upon the suicidal mania?

In the record of suicides in foreign countries, there is a remarkable difference between Protestant States and those of the Roman Catholic faith and the Greek faith; the term Protestant is used to signify that the people are more liberal in their ideas and have few fast or fete days tending to evoke worshipful ideas, they are more cultured, more literate than where Catholicism is dominant. Does either system tend to repress the mania? If so, which benefits humanity most with its restraining power? Moricelli says, "Where Catholicism prevails suicide diminishes in frequency, in direct ratio as the power of the Catholic religion increases. A few statistics will show this to be a fact.

To each million inhabitants of the Catholic countries of Spain, Portugal, Italy, Ireland, Russia and Finland, the yearly deaths from suicide were 231, the deaths from the same cause in Protestant Denmark, Prussia, Switzerland, Bavaria, Norway and England were 624. Now, look at a group of cities—Protestant: Dresden, Berlin, Vienna, London, Stockholm and Christiana, deaths were 190. In the Catholic cities of Moscow, Petrograd, Rome, Modena, Milan and Lisbon the deaths were 36. These statistics are from the Census of 1900 and can be relied upon as being correct. The high ratio in Protestant communities is too marked to escape attention. What conclusion can be drawn from these records? It shows that wherever the Greek or Roman Catholic is predominant, it has a tendency to repress that spirit of despondency, which often affects a prospective mother, who is living where liberal opinions regarding creeds are current, where civilization is greatest, where higher education abounds, and where the mother does not have the instruction which more intolerant creeds inculcate; that *it is the wife's highest duty to do the work which the Lord has laid upon her* and to add to his glory by bearing numerous children, thus building up the Church. She is taught this from her girlhood, and such a culture in the school and the confessional, keeps her mind from the desire to avoid maternity which is so common among the highly civilized, or to wish that she was dead, and thus give her offspring a gloomy and despondent spirit. The conclusion is, that religion *has* a restraining influence, and the Catholic faith more so than the Protestant. It is impossible to arrive at any other conclusion making due allowance for errors in statistics.

In any attempt to make a study of causation, the first thing to do would be to learn what the general disposition of the victim was. Did he have spells of gloom and despondency? Had such periods been growing more and more pronounced, recurring oftener and becoming more noticeable? In such a study, the fact that there were long periods of good nature, does not upset this theory. At such times the average good nature of the individual was in evidence. The usual disposition of the individual being unobstructed at the time was therefore dominant. A suicide is in one sense similar to a periodical drunkard, who at intermediate times refuses to drink any intoxicants. His better nature is in command—when the gloom periods hold sway. The suicide has pessimistic views of life. His en-

tire environment will be overcast by a mental hallucination which imperceptibly increases the despondency. Sooner or later the thread of self control snaps and there is a fatal result. At every recurring period in which a victim of the mania broods over it, there is an increase in the power of the brain cells which control it (we assume that it is controlled by some portion of the brain structure), until it becomes stronger in its ability for injury, and through frequent repetition it becomes dominant. The argument is drawn from analogy, and is similar to the study of any special subject. Every time a question is taken up, the student's knowledge is extended by the increased power of the mind, operating through an enlarged brain cell.

The beginning which is the precursor of suicide, is of slow and insidious growth. If noticed, repressive measures may be instituted. The condition at first is very slight and trivial, which increases as the brain activity expands by slow or more rapid changes in proportion to environment.

There *are* persons in whom the longing for death, which was wished for, has disappeared; not because of any individual conscious effort, but because the environment was conducive to the repression of this feeling. To illustrate: Mrs. M. was an official of an important charitable organization, her interests being to look after prisoners in jails. She said, "Up to my twentieth year I often at times felt an irresistible longing for death, and the desire seemed to be growing stronger from year to year; only once, however, was it powerful enough to overcome me. I was out in the barn one day when about twelve years old, playing about the harness when the desire struck me again. I took the lines from the harness, fastened them to a beam overhead, made a noose, jumped up on the manger, had put my head in it and was trying to draw it tight, when I heard my father coming. I took the noose off, jumped down and ran to meet him. I did not want him to know what I had in mind. Since my twentieth year I have had no such desire. Question. How do you account for this desire? Answer. I asked my mother if she could account for my spells of despondency and gloomy feelings. She replied, 'Daughter, you were a very unwelcome child. I already had five children, and I often wished I was dead.'"

How do you account for the absence of those feelings since you were twenty years old? "About that time I became engag-

ed and soon was married. My married life has been ideal, and my labors trying to cheer the unfortunate and outcasts, and the many happy results I have seen from my labor of love has cheered my spirit and lifted my mind out of those periods of gloom." This is one case out of many that might be given, but I will give another, not exactly similar, but showing the same incentive:

Miss W., a refined, intelligent girl, often said she did not intend to ever marry, because she felt that she could not go through the ordeal of maternity, that it would be her death struggle. She became attached to a gentleman and after long persuasion consented to a marriage. In due time she became cognizant that she would become a mother. Her pre-marital hallucination returned with increasing power, and she spent many lonely hours brooding over her approaching deathbed, as she firmly believed it would be. She was the mother of three children, and this mental condition was present before the birth of each. Now, mark the result: One boy shot himself at eight years of age, the girl drowned herself at twelve, the other son hanged himself at nineteen. Who is to blame? Primarily, the mother through ignorance; secondarily, society and the State, for failing to teach important lessons which govern natural laws relating to reproduction.

The average mother is lamentably ignorant of the effect of her mentality upon her offspring at an important period of its nascent existence. This ignorance pervades the entire social and educational structure, and is enhanced by efforts to suppress the best education that can be instilled into youthful minds—which is, that in *all things*, particularly the upbuilding of mankind, the laws of nature and of nature's God must be obeyed or humanity will suffer for their infractions.

The primal cause of suicide is an unbalanced brain, arising from the pre-natal influence of the mother. This theory has not been sufficiently considered, if at all. It has been unobserved and unsuspected by the sociologist, the scientist, and is totally unknown to the masses.

In conclusion, the problem is how to produce good brain soil, *That* is eminently necessary for the prevention of crime, but it cannot be successful unless first prepared by intelligent mothers, and mothers must be educated for the work. The suicidal mania is caused by, and resolves itself into that of maternal impressions. It is only one phase of a great question. It is of

commanding importance to this generation, but vastly more important to succeeding ones. All other measures to prevent suicides and other crimes have proved abortive. Let our educators, scientists and physicians give this theory a trial before they condemn it.

SOME RECENT ADVANCES IN ORTHOPEDIC SURGERY.

BY

ANSON H. BINGHAM, M.D., NEW YORK.

If we were asked what recent methods of treatment had been the most important contributions to orthopedic surgery, we would say the Albee method of bone transplantation, the Calot treatment of tubercular abscess, and the Abbott method of treating scoliosis. These three conditions were among the most difficult that the orthopedist was called upon to treat; but thanks to the work of Albee, Calot and Abbott, they no longer possess any terrors, and respond readily to exact methods of treatment.

The great value of the Albee method of bone transplantation is best shown in the treatment of Pott's disease. Up to three years ago the approved treatment of Pott's disease in children consisted of horizontal fixation upon a frame or cuirasse until the acute symptoms subsided, followed by some form of support—either the plaster of Paris jacket or the spinal brace. While these various appliances limited motion to a great extent, they did not secure absolute immobilization of the diseased joints, or entirely relieve pressure upon the involved vertebral bodies. This necessitated carrying out our treatment for a long period of time, and in almost every case the deformity increased more or less. While we all realized that the immobilization furnished by this treatment was not absolute, it was far better than any other method at our disposal, and in favorable cases resulted in a cure in from three to four years. For many years we have known that a method of treatment which would absolutely eliminate motion in the diseased vertebræ and entirely relieve pressure on the involved bodies would insure a rapid cure of the disease and at the same time prevent the occurrence of deformity.

In September, 1911, Albee first reported his method of bone

transplantation, which briefly consists in splitting the spinous processes of the diseased vertebræ, including the healthy one above and below, and inserting in this wedge-shaped cavity a graft of bone removed from the inner surface of the tibia. This produces bony fixation at the seat of the disease, and holds the vertebræ involved in hyper-extension by the splint action of the bone plate. The object of this operation is to produce a firm, solid bridge of bone between the spinous processes of the diseased vertebræ, absolutely and permanently immobilizing the spinal column at the seat of the disease. In the operative treatment of other tubercular joints it has been shown that it is only necessary to secure bony ankylosis in order to get a rapid disappearance of the tubercular process, even though nothing be done to remove the diseased tissue.

Ely has shown in his recent pathological studies that tubercular disease cannot exist in a joint deprived of function, and that bony fixation is absolutely curative. It is upon this fact that Albee has based his method of treatment. In other words, this treatment substitutes for nature's methods an artificial fixation, in an attempt to prevent the disfiguring and crippling angular deformity and progress of the disease.

Briefly the technic is as follows: With the patient face downward upon the table, the spinous processes are reached by a curved incision to one side of the kyphos and the turning back of a skin flap, taking care not to disturb the supraspinous ligament. With a scalpel the cartilaginous tips of the spinous processes are split in the middle line including the supraspinous ligament. The interspinous ligaments are then divided into equal parts for the depth of three-quarters of an inch. There is very little bleeding, as only ligamentous structures have been cut. With a chisel and mallet each spinous process is split longitudinally into equal parts for a depth of three-quarters of an inch, care being taken that green stick fractures are produced on the same sides of all the spinous processes. The unbroken halves preserve intact the normal leverage of the spine. This produces a wedge-shaped cavity into which our transplant is placed. A hot pack is placed over the field of operation while the graft is being taken from the shin.

The left leg, which has been previously prepared for operation, is flexed upon the thigh, a sandbag being placed across the popliteal space. An incision is made down to the crest of the tibia, and a piece of bone removed with a sharp chisel. In

our last eight cases we have used a motor saw to secure our graft, which affords a very exact and rapid method. The length of the graft depends upon the number of vertebræ to be bridged, and involves the entire thickness of the tibia, being covered with periosteum on one side and bone marrow on the other. Before placing it in its bed the periosteum is incised in several places, to allow exit for the osteogenetic cells. It is then inserted between the split halves of the spinous processes, and held in that position with interrupted sutures of kangaroo tendon passed through the supra- and interspinous ligaments. These structures are brought together over the posterior surface of the graft under tension. The object of placing the transplant under tension is to straighten the deformity; for the graft is always straighter than the kyphos, and the spine is straightened and drawn to the bone splint by means of the heavy ligatures. If there is moderate kyphosis of short duration it is entirely obliterated, while one which has existed several years is much diminished. In cases of marked kyphosis it may be necessary to saw half way through the graft six or seven times on its concave side and then bend it into place. In this way the graft is firmly imbedded under tension in the spinous processes, and affords firm fixation the moment it is sutured into place. This is shown by the immediate disappearance of pain in adults, and pain and night cries in children. In the cases we have operated upon, the acute symptoms have disappeared within twenty-four hours after the operation.

The accepted requirement for a bone graft is that it have contact with recipient bone at one end. In the case of our spinal transplant there are two bony contacts for each vertebra into which it is inserted. Another point in favor of the life of our graft is the fact that diseased tissues are not entered. As the disease is limited to the vertebral bodies, the field of operation is entirely in healthy structures, so primary union may be expected in each case.

The after-treatment of these cases is a matter of considerable importance. According to Albee, it simply consists of recumbency upon a frame or fracture bed for from five to six weeks, after which the patient is allowed to walk without any form of support. It seems to us from the careful study of these cases that some form of spinal support, preferably the plaster of Paris jacket, should be worn for at least three months

after the patient gets up, and in our more recent cases this treatment has been carried out. During the past two and a half years we have treated twenty-two cases of Pott's disease by bone transplantation, with most encouraging results. One case died later of pulmonary tuberculosis, and another became infected, necessitating removal of the graft. The remaining cases, with the exception of one recently operated, are up and about, apparently free from symptoms. In all these cases the acute symptoms subsided immediately after the transplant was inserted.

One great advantage of this treatment over the former uncertain methods is the amount of time gained, the old mechanical treatment extending over a period of from three to four years, the operative treatment requiring but three or four months. The child can then run about without the confinement of a jacket, and even go in bathing. We at last feel that we have at our disposal an easy, safe and positive treatment for Pott's disease.

Other orthopedic conditions in which the bone graft has proved of value are in the immobilization of other tubercular joints, to replace bone destroyed by infection or disease, and to fix in place certain dislocated joints, especially congenital dislocation of the hip.

Last October our attention was called to the results obtained by Calot of Berck in the injection treatment of tubercular abscesses. Our results from this method have been so satisfactory that we are now using it as a routine in all cases of uninfected cold abscesses. The appearance of abscess in the course of a tubercular joint affection must always be looked upon as a serious and dangerous complication. The principal danger lies in the possibility of secondary infection before its contents find an outlet, and because of the probability of infection when a connection with the exterior has been established. The pure tubercular abscess ordinarily produces but few symptoms, and may remain for months before its presence is detected. Even when it reaches the surface of the body it is not liable to produce trouble unless it becomes infected. If, however, such a collection of fluid is opened, mixed infection is inevitable, and many patients die because of the exhaustion of long-continued suppuration, and of the amyloid degeneration that may finally result.

The treatment of this complication has always been a sub-

ject on which orthopedists have disagreed. Many surgeons advocate absolute non-interference, claiming that in many cases the fluid will be absorbed. Others insist that all collections of pus should be opened as soon as discovered. It has always seemed to us that the middle course was perhaps the safest. If fluid appeared, but remained quiescent and produced no symptoms, it was not disturbed. If it increased in size and produced symptoms of pressure or interfered with proper mechanical treatment, the tension was relieved by aspiration. If the patient presented evidence of a mixed infection, the abscess was opened and drained.

This was our course of treatment for a number of years, until we tried the Calot method of injection. The equipment consists of two modifying fluids, a number three needle, a small aspirator and a glass syringe. Any needle larger than a number three is liable to result in the formation of a fistula. The modifying liquids are as follows:

No. 1

Oil	70 grammes.
Creosote	5 “
Ether	30 “
Guaiaicol	1 “
Iodoform	10 “

Boil the oil for one-half hour, cool and add the creosote, guaiacol and iodoform, and lastly the ether. This is to be kept in a sterile flask.

FLUID No. 2

Naphthol camphor	2 grammes.
Glycerine	12 “

To be shaken and injected immediately, as it is very unstable. Fluid number one is to be used in all cases where the contents of the abscess are liquid. Number two is used in all cases where the abscess is not yet ripe, or where it contains clots which block the needle. In which case two or three injections of naphthol camphor will soften and dissolve the clots, after which we return to fluid number one.

Absolute asepsis must be preserved throughout, not only in regard to the instruments and modifying fluids, but also in the preparation of the patient.

The puncture is made obliquely through healthy skin into the abscess cavity, the aspirator attached to the needle, and the contents entirely removed. The aspirator is replaced by the syringe containing the modifying fluid, and the cavity injected with from one-half to one-third of the quantity of pus removed. This treatment is repeated every ten days for from seven to eight times. At the last sitting the contents are withdrawn without injection, followed by compression of the region by means of firm pads of cotton wool, retained in position by a firm roller bandage. On the fifteenth day the dressing is discontinued. The duration of treatment of a cold abscess therefore requires about three months.

According to Calot, these injections act by provoking a great afflux of white cells, afterward destroying them, setting at liberty certain ferments which destroy the bacilli.

The results obtained by this treatment in our orthopedic wards have been extremely gratifying. None of the abscesses treated in this manner have broken down, provided we started the treatment before the skin was invaded. In some cases the abscesses became smaller in size after a few injections, and two cases of psoas abscess entirely cleared up under this treatment. The results so far encourage us to hope that the long-discharging sinuses which have so seriously complicated our tubercular joint cases may be prevented to a large extent.

One of the most difficult conditions which we are called upon to treat is lateral curvature of the spine, and there is probably no deformity requiring more thought or more careful selection of methods. We all realize that the keynote to successful orthopedic surgery is overcorrection; and Abbott of Portland has devised a method of applying this principle to cases of scoliosis.

The Abbott method is concerned only with the so-called structural or fixed curve, the simple functional type being best treated by properly selected gymnastics.

The overcorrection is brought about with the patient lying in a specially constructed frame, by means of weights and pulleys, and a heavy plaster jacket applied while the spine is flexed. On a level with the concavity a large opening for decompression is made, reaching beyond the median line at the back. Through two smaller rectangular openings made on the opposite side at the anterior and posterior axillary lines, pads of felt are pushed in from time to time, which help to

correct the rotation and lateral deviation of the spine. The patient is kept about three months in this corrective jacket, followed by a light plaster corset, which is removed twice daily to permit special gymnastic exercises. After six months the corset is done away with progressively, at first during the night, then every other day, so that at the end of the year it is entirely discarded.

With these newly devised methods of treatment, together with tendon transplantation, arthrodesis and more exact methods of diagnosis, we are able to successfully treat cases which a few years ago would have been pronounced hopeless. We feel that the much-neglected subject of orthopedics has at last gained the recognition which it deserves, and will within a few years occupy the same high plane as the other departments of general surgery.

THE INDICATIONS FOR OPERATION IN GLAUCOMA.—Posey, in *The Therapeutic Gazette*, advises that operation be performed—

1. In all cases of acute and subacute glaucoma and in all chronic cases on the manifestation of any inflammatory glaucomatous symptoms.

2. In all cases of chronic glaucoma in which there is doubt of the patient's co-operation in the persistence in the myotic treatment throughout the remainder of life. This includes practically all hospital cases and such private cases as may be of a weak and vacillating disposition.

3. In all cases of chronic glaucoma which reside at such a distance from proper ophthalmic care that they are unable to report at sufficiently frequent intervals for the supervision necessary in the proper and safe carrying out of the myotic treatment, or for operation in the event that inflammatory symptoms arise.

4. In chronic cases under fifty-five years of age, when the field of vision and central vision are good, an operation upon the most affected eye is advised, myotics being employed in both the operated and unoperated eye for the remainder of life. Operation upon the second eye should follow, if subsequent observation shows that vision is maintained better in the operated than in the non-operated eye.

5. In all cases of chronic glaucoma, without regard to age or the development of the disease, in which myotics have been given a faithful trial for at least six weeks or two months, as evidenced by the constant maintenance of pupillary contraction to almost pin-point size, and in which vision and the field of vision show progressive deterioration.

SOME FEVER CASES.

BY

CLARENCE BARTLETT, M.D., PHILADELPHIA.

(Read before the Homoeopathic Medical Society of the State of New Jersey, at Asbury Park, June 2, 1916.)

WHEN your President, my old friend and college mate, invited me to prepare a paper for your benevolent consideration, it occurred to me that inasmuch as I had recently presented a paper before the Pennsylvania Society on "The Cryptogenic Fevers" it might be of interest if on the present occasion, I presented some short accounts of certain cases seen recently, all of which help in some measure to show the difficulties one encounters in reaching correct conclusions.

CASE I.—*Latent cholelithiasis producing chills, fever and sweats.*—I was consulted concerning this case on May 26, 1916. The patient was a young unmarried woman, aged 31 years. She had been vaccinated quite recently; in fact, the vaccination wound had not yet healed. The vaccination had pursued a normal course, and at no time had there been any glandular enlargements. About one week prior to my examination she had started in with irregularly recurrent chills followed by fever, the temperature at times mounting to 104° F. Complete physical examination showed no evidence whatever of lung lesions; the heart was normal; there was no splenic enlargement. The patient's only subjective discomfort was an epigastric sensation which she described as a nervous feeling. There was unmistakable though mild soreness over the gall bladder on palpation, but no rigidity. The intestinal peristaltic sounds were good, and the bowels moved daily. The blood had been examined for malarial parasites with negative results. A leucocyte count taken at the time of my visit amounted to 11,000. Quite recently the patient had met with severe financial loss.

The questions raised in this case were the possibility of the fever having resulted from the vaccination and the suggestion raised by the patient that the chills were of nervous origin. It was hardly conceivable that a vaccination which had shown not the slightest evidence of secondary infection could be the cause of such a severe illness, especially in view of no evidence of involvement of lymphatic vessels or glands. The neurotic theory

was untenable, as I stated in my previous paper, although the girl had exhibited pronounced evidence of her temperament. Her fear of small pox was extreme; indeed she read the encyclopædia on the subject, and thereupon was seized with some of the symptoms of the disease and sent for her physician. It should ever be kept in mind that chill, fever and sweat can never have a nervous origin.

The diagnosis given was cholecystitis notwithstanding the entire absence of pain and jaundice and dyspeptic symptoms, past or present. As the patient expressed it, she was not aware of any local trouble until I had elicited the tenderness on palpation. The urine showed no abnormality other than a superabundance of urates. It contained neither pus nor bile.

In view of the indefinite pain, operative treatment was held in abeyance. The febrile attacks continued without abatement. Tympany developed two days later, a surgeon was summoned immediately and removed 118 gall stones.

This case is instructive because of the entire absence of data suggestive of gall stones until the febrile paroxysms appeared. Most careful questioning of a patient in the entire preservation of her faculties failed to discover any history of indigestion of any kind and at any time. Furthermore it teaches us that notwithstanding the fact that many people harbor gall stones without any disturbance of health, such a condition is akin to the carrying of an internal charge of dynamite, which may explode at any time that proper conditions supervene. Although I expressed the opinion that the sepsis was not due to the vaccination, there must remain a strong suspicion that the vaccine disease may have lowered immunity to the extent of making a dormant lesion an active one.

Viewed in the light of subsequent events, it would have been wiser to have ordered an operation at once. I felt justified in waiting, however, because of the entire absence of rigidity and tenderness and the most excellent peristalsis.

Apropos of the direful results from latent cholelithiasis I might refer to a case seen in the same city as the patient above mentioned. The patient was 60 years of age. It was only recently that there had been any evidence of an abdominal illness, and then while he was in Florida when away from his family physician. Never had there been dyspepsia, jaundice or colic. Autopsy established the cause of death as subacute hæmorrhagic pancreatitis proceeding to gangrene. The gall bladder con-

tained one large calculus which probably gave rise to no trouble, and a number of small stones the size of new peas.

CASE II.—*Typhoid fever following a normal course, the correct diagnosis delayed because of unusual features in the history.*—The patient was a man aged 27 years. He was a teacher in a preparatory school where a small epidemic of typhoid fever had broken out one year before, and again but recently. He had taken antityphoid vaccination. The clinical features of typhoid fever were present at the time of my visit, but he gave a history of a similar febrile illness but six months previously; the Widal reaction was negative; the rose spots had not appeared, but the spleen was slightly enlarged. Thorough physical examination of the chest gave absolutely negative results. The temperature ranged around 103° , and the pulse from 72 to 80. A diagnosis as typhoid fever was suggested as the probable cause of the illness. This proved to be the case a few days later when Widal became positive and rose spots appeared.

The case at present sight hardly appears worth bringing to your attention were it not the family physician's remark concerning his diagnostic difficulty. "What threw me off the track was the history of an exactly similar attack of fever six months before; the case would have been plain enough otherwise. Besides I knew the danger of not recognizing pulmonary tuberculosis, and while I could find nothing wrong, I thought you might possibly discover that which escaped my observation."

To the above I might add the observation that while the taking of a good history is more than half the examination, nevertheless patients are not infallible in their statements. The examiner should invariably make searching inquiry into the details of the history as they give it in order to establish their accuracy.

CASE III.—*Incipient Pulmonary Tuberculosis Simulating Malarial Paroxysms.*—A college student aged 23 years was referred to me by his family physician for diagnosis and treatment in September, 1915. In September, 1914, he had what was called a pretty bad attack of malaria which lasted four days, counting the time he was in bed. He was attending college at the time. A second attack came on while at home in June, 1915. It lasted about a week, and was treated by euquine, which seemed to be efficient for a time, but gave no permanent result. Now he has a return of the malaria every other Sunday, with febrile paroxysms every other day. The attacks

- start with chill, and if he goes to bed he perspires and then the trouble disappears with the exception of headache. His weight was $145\frac{1}{4}$; his best weight had been 153 pounds. He denied cough. An examination of the blood failed to discover malarial organisms. The chest was normal aside from a jerky inspiration in one apex. The patient was taught to keep a temperature chart, which demonstrated that the febrile paroxysms exhibited no periodicity suggestive of malaria. An X-ray examination of the chest gave suspicious shadows at the roots of both lungs. These taken in conjunction with his other symptoms made the diagnosis of early pulmonary tuberculosis highly probable. Quinine was administered for the therapeutic test, and gave an unsatisfactory result. After a ten days' trial it was abandoned. The treatment consisted of rest, over-feeding and the open air life. After three weeks' treatment his temperature had subsided to normal and his weight had increased to $148\frac{1}{2}$. In October he had a rise of temperature to 99.4 on alternate days but no quinine was administered, and it subsided under rest. From this time until December 8, when the patient was dismissed there was no fever, and there was a steady increase of weight up to 156 pounds.

CASE IV.—*Persistent Fever Dependent upon Pulmonary Tuberculosis.*—A young woman aged 22 years discovered that she had what she called sneaking little rises of temperature. Seldom did the thermometer go above 100° . I first saw her in January, 1916. The fever began the previous summer and was discovered by accident when she was prepared for taking anti-typhoid vaccination. She had lost some little weight. Her physician suspected a tubercular origin, but could find no physical signs of pulmonary disease. The data at my examination were entirely negative, with the exception of the X-ray which showed positive involvement at the roots of the lungs. Rest, open air and over-feeding were advised. From the time rest was instituted the fever disappeared and had not returned when I saw her again two months later. She had then gained $5\frac{3}{4}$ pounds and felt first rate. The only physical sign was jerking ("cog-wheel") inspiration over the left apex.

It might be argued that the patient being a nurse had studied herself too much and had worried herself into a fever and malnutrition. The second examination and the X-ray proved her to be tuberculous, and treatment brought about unquestionable improvement.

CASE V.—*Pulmonary Tuberculosis in a Boy Without Symptoms Other than Persistent Fever.*—E. K., aged 15 years, was admitted to Hahnemann Hospital on March 14 because of weakness and fever. He gave a history of disturbance of vision two years ago, from which he recovered. On March 10, he had some swelling of the feet, which soon disappeared. The urine contained a trace of albumin, on the first examination, but none afterwards. Tube casts of hyaline variety were present. The renal efficiency test gave 19 first hour and 22 the second hour. Physical examination showed contraction of the right apex; slightly impaired resonance in supra-spinous and infra-clavicular regions. Cog wheel inspiration was well defined. The X-ray showed marked thickening at the roots of both lungs, most marked on the left side with extension into the substance of the lung. During the patient's four weeks' stay in hospital, his temperature fluctuated daily from normal to 101.8; the pulse ranged from 70 to 110 excepting on one occasion when as the result of excitement, it rose to 132; respirations from 18 to 32, but usually about 22. The leucocyte count on March 16, was 13,600; on April 2, 8,400. The patient was treated by rest, open air, and supra-alimentation and medicines, but was dismissed unimproved.

CASE VI.—*Syphilitic Fever Simulating Typhoid Fever.*—Man, aged 22 years, admitted to Hahnemann Hospital on March 3, 1916, complaining of chills and fever. His family history was negative. He had had measles and other common diseases of childhood. When nine years of age he had suppurative cervical adenitis. Eight years ago he had typhoid fever, which continued for ten weeks. He denied syphilis. He considered himself perfectly well until January 1, 1916, when his present illness began with chills, fever and sweat. He declared that since then he had the chills recurring about once a week. He did not consult a physician but depended upon "counter prescriptions," and took considerable quinine without any good result. On admission to the hospital his illness was negative as to symptoms other than as above stated. Numerous urinary examinations were made without finding anything wrong. Spleen and liver were normal. The leucocyte count was 4,800. He had a mitral systolic murmur but it seemed to be perfectly compensated. The Wassermann was triple plus. Widal reaction negative, no agglutination with paratyphoid bacilli. Blood culture was sterile. On March 7, a differential

PORTRAIT OF DR. W. B. VAN LENNEP**Presented to the Hahnemann Medical College and Hospital of Philadelphia.***(See Frontispiece.)*

THE feature of the annual banquet of the Alumni Association of the Hahnemann Medical College and Hospital of Philadelphia was the presentation to the college, by his friends, of a portrait of Dr. William B. Van Lennepe, A.M., M.D., F.A.C.S. The portrait was painted by the well-known Philadelphia artist, Mr. Rittenberg, and is considered by competent critics to be a splendid likeness of Dr. Van Lennepe, and one of the finest of Mr. Rittenberg's portraits.

Dr. Harrison W. Howell, of Wilmington, the President of the Alumni Association, after a few preliminary remarks in regard to the work that is being done by the Hahnemann Medical College, introduced Dr. Herbert L. Northrop in the following words:

"After referring to the distinguished men who have graduated from the Hahnemann Medical College, I must now mention that 'Prince of Deans,' Dr. H. L. Northrop, and that wonderful Dean, Dr. William B. Van Lennepe. If Herbert L. Northrop was a Prince, then William B. Van Lennepe was a King; and I feel that Dr. Northrop would join with me in pronouncing William B. Van Lennepe the best surgeon, the best fellow, and the very best dean that ever served the Hahnemann Medical College. It was during his time that all of the good things we are hearing about in reference to the high standard of this institution were started, and it was due to his untiring efforts and his unusual ability and skill that this college ranks today in the high standard of requirements as Class A. So, gentlemen, whether you know it or not, or whether you like it or not, I wish to assure you that William B. Van Lennepe, the King of Deans, was alone responsible for the starting of the work and the necessary changes that upon completion gives to this institution the reputation of being the very best homœopathic medical college in the world."

PRESENTATION SPEECH.

BY DR. H. L. NORTHROP.

Mr. Toastmaster and Gentlemen: It is related that Daniel Webster and Rufus Choate were once opposing counsel in a lawsuit concerning an alleged infringement of a patent right on locomotive wheels. The wheels were before the jury. Rufus Choate, as counsel for the defendant, expended his legal acumen in a learned and labored mathematical essay, going to prove that there was an essential difference between the wheels in evidence, and therefore no infringement on the patent right. Then Webster spoke for the plaintiff. "Gentlemen of the jury," said he, "you have just heard an elaborate scientific disquisition upon those wheels. I have nothing of the kind to give you. There are the wheels; look at them." The jury looked at them and gave him the verdict.

Gentlemen of the Board of Trustees of Hahnemann Medical College and Hospital, I have no elaborate address to offer you on this occasion. If you ask me what encomium will I bestow upon Dr. Van Lennep tonight, I reply, "Behold the man!" Behold his work, his results, his reputation! His achievements speak louder and more eloquently than my words could possibly speak; and this admirable life-size, lifelike portrait, standing before us, speaks for itself.

As a teacher of surgery Dr. Van Lennep is unquestionably without a peer. The department of surgery at Hahnemann College is widely recognized for its thoroughness and its excellence. The instruction in surgery given at this institution is second to none in the land; its far-reaching effect upon the homœopathic profession in general, and upon Hahnemann College in particular, is tremendous. Dr. Van Lennep's personal lectures and clinics have a finish and a style which make them classics of their kind, while the educational welfare of the student is always the uppermost and the foremost thought in his mind. As a medical educator he has always kept fully abreast of the day—is always aggressive in matters pertaining to his specialty. As an operator he is adept and dextrous, judiciously conservative and wisely bold—an ensemble of qualities essential to the make-up of the well-balanced master in surgery.

There is another quality in the character of this giant in surgery that, to my mind, places him upon even a loftier pinnacle. I refer to him as a consultant in things surgical, and as an adviser and organizer in educational and executive matters. Dr. Van Lennep's opinion in surgical diagnosis and treatment is invaluable. As a member of the Board of Trustees of Hahnemann Hospital for many years, of various committees appointed to control hospital affairs, and as Dean of the college for four years, his opinion and advice are indispensable and he has rendered yeoman service in college and hospital management.

I can truthfully say that Dr. Van Lennep's work, life and talents have been consecrated to the interests and welfare of Hahnemann College and Hospital. There is not a man on the college Faculty or hospital staff whose heart and soul are so wrapped up in the success of this institution as his; not one who takes so little diversion or who has so few outside attractions as he; there is no one on the staff who places as large a majority of his patients in Hahnemann Hospital as he. In fact, Hahnemann is his first and only professional love.

Gentlemen of the Board of Trustees, the well-known Biblical saying that "a prophet is not without honor save in his own country and in his own house" has no place in our midst tonight. The making of this portrait is a distinct honor to Dr. Van Lennep; its presentation to Hahnemann College and Hospital confers a very great honor upon that institution; Dr. Van Lennep's many friends, some of whom are gathered here this evening, also share in the honor and respect accorded him; while I, gentlemen, am especially honored in being permitted to present to you this portrait of William Bird Van Lennep, surgeon, teacher, executive, colleague, friend.

SPEECH OF ACCEPTANCE.

BY MR. JOHN GRIBBEL.

Mr. Toastmaster: It is a very pleasant duty that has fallen to me to accept on behalf of the Board of Trustees this work of an artist who had for his subject one of the greatest possessions Hahnemann has had since its foundation. William B. Van Lennep is one of Hahnemann's greatest assets today, and I rejoice in the thought that his portrait, as well as his enduring life work, will be an asset of Hahnemann in gen-

erations to come. No man or woman ever had a greater heritage than to have been born of a good stock, and I rejoice that down through the years there is to be a stream of medical men honoring their profession, who will stand with uncovered heads, pointing to this portrait, and say, "This was my professional father." It is a measure of success worth achieving that a man shall in the workday of life allotted to him so do his task that men shall say of him that he was above the average, but it is a glorious thing that his work shall be of such an order that men shall say he stimulated other men to do still better things. It is a credit to any man to have it said that he preserved the traditions of a noble profession, but it is a superb thing to have it said that he founded a tradition which lifted his profession to still nobler ideals of standing and attainment.

It is praise of no low order to say of a man that he was wise in his daily work and made the most of the opportunities which the days brought; but it is inspiring to hear it said of a man that his vision and plans were such that his day's work magnified the good of another man's tomorrow.

And all this, my friends, we conservatively say of William B. Van Lennep. If he were not present with us here tonight, I would put restraint aside and state the whole of the truth, but out of regard for him we must be conservative. Emerson never said a truer thing than when he said: "Every organization is but the lengthened shadow of a man." Personality is still power. A college is still some Mark Hopkins sitting on one end of a log with an earnest student sitting on the other end. Napoleon could *make* circumstances, but he had to *find* men. Hahnemann will have opportunities and secure means, but out of your ranks must come clear-headed, earnest, unselfish men of high resolve and commanding ability, who shall constitute the *real Hahnemann*.

The future shall be as great as the wishes of the present in just such measure as you shall sacrifice yourselves in devotion to service. I rejoice that in this portrait, by your generosity, Hahnemann possesses a monument of a man of commanding personality, who is a born teacher; who has always held Hahnemann's advancement above every personal ambition; who has held the honor of his profession as more precious than rubies; who decided every question, not by asking "Will it pay?" but "Is it right?" and who, now at the summit of his strength and

accomplishment, sits with us tonight rejoicing that so much that he began has been accomplished; that so much else is planned aright and moving toward realization; but, better than all that, he is permitted to see around him here tonight such a regiment of competent, energetic men pledged to realize to the full the ideals he has implanted in them.

Mr. Toastmaster, there is another reason for my joy and exultation in Hahnemann's possession of this portrait. It is this—that down through the years thousands of men and women may have the privilege of looking upon a presentment of the features of a man who through the years has been your friend and my friend; whom we have known in days of sunshine and days of shadow, with whom we have stood in the thrills of success and in the throes of defeat, but whom in all days and all sorts of days we have found to be the same sure, steady, loyal, warm-hearted friend, William B. Van Lennep. He never came a bit too soon anywhere, nor brought too long a day. In other years to come, but far distant yet, when other men shall tread the halls of Hahnemann in a new building—perhaps on the Parkway, or some new parkway—I am glad that men who are to be so unfortunate as not to be born in Dr. Van Lennep's day are to have him come into their lives as an inspiration by this portrait and the legend of capacity, power and kindness which he is now founding.

Mr. Toastmaster, on behalf of the Trustees I accept this portrait with deep feeling and appreciation, and on their behalf and on behalf of every friend of Hahnemann I thank you for the generosity which made the gift possible; for the quality of the portrait as a work of art; but over and above all else, for the wisdom and keen appreciation which moved you to put into permanent form Hahnemann's appreciation of the man, William B. Van Lennep.

OVARIAN CYSTS.—Don't tap or incise ovarian cysts. Whenever practicable remove them intact through a large incision.

It is now recognized that many of these cysts, though innocent in appearance, are malignant, and not a few cases have occurred in which, after ovariectomy by a small incision and trocar, the patients have returned with generalized cancer of the peritoneum owing to infection by cyst contents during the operation.

There is also a possibility that the cyst, especially if adherent to intestine, may contain pyogenic bacteria.—C. H. Whiteford in *The Medical Press*, April 12, 1916.

EDITORIAL

MEDICAL EXTREMISTS.

WE have from time to time endeavored to point out in these columns the foolish and even dangerous extremes to which the medical profession is being led by those whose misguided enthusiasm has led to actions which are little short of fanatical. The men who are largely responsible for movements of this sort in the profession are those who are associated with laboratories, teaching institutions and so-called "scientific foundations," and have little or nothing to do with the practical side of medicine as seen by the every-day physician. Safe in the secluded corner of their library or laboratory, these gentlemen elaborate schemes of conduct for the profession and for the public which are admirable in their conception, but impractical in their execution.

It is not surprising that men of this type who have come forward in conjunction with the recent epidemic of poliomyelitis and by their public actions have produced what has bordered upon panic in most of the great Eastern States. Not content with stating in plain terms that nothing positively is known at the present time as to the manner in which this disease is propagated from one individual to another, an effort has been made to conceal ignorance in regard to this by long and elaborate reports which may be best described as "words, words, words."

As the result of this pseudo-scientific nonsense, the public has been worked into a state of panic, business interests have been paralyzed in many communities, innumerable hysterical females have been driven into nervous prostration and the normal activities of many communities have been seriously interfered with. It is with little wonder then that we read that the citizens of Oyster Bay, Long Island, at a public meeting held on September 4th, passed resolutions condemning the Board of Health and the Rockefeller Institute, and proceeded to set forth "That it is the consensus of opinion of this committee that the credulity of the public has been preyed upon sufficiently long in this neighborhood and business interests are sufficiently paralyzed; that frenzy and terror have been sufficiently propagated; that it is high time for a return of common sense, the discharge of the medical maniac, the

resumption of local business, the recall and restoring of confidence of our easily scared summer residents and the application of common horse sense to the so-called epidemic with which we as well as other communities have been afflicted."

We do not cite this quotation in order to give it endorsement, though it contains much to which Boards of Health and the medical profession in general may give serious consideration. The public will stand a good deal from doctors, because it is believed that their efforts are inspired by honesty and based upon scientific knowledge. There is a point, however, beyond which we, as medical men, dare not go, especially when we base our actions upon vague theories and doubtful facts. We are thoroughly aware of the fact that polyomyelitis is a serious disease and that the recent epidemic is one that has caused untold sorrow and distress. When such conditions prevail, however, it is more important than ever that medical men should keep their heads about them and act in such a manner as to restore public confidence rather than exhibit a degree of fear and cowardice that drives the community into a state of panic.

G. H. W.

THE READING MEETING.

At the meeting of the Pennsylvania State Homœopathic Medical Society, held in Reading this month, the staunch advocacy of Homœopathy in the treatment of all diseases was the keynote of the meeting, this applying to the treatment advocated in the specialties as well as in general medicine.

In view of the general state of hysteria of the public by reason of the present epidemic of poliomyelitis, it was distinctly gratifying to have the report of Dr. S. P. Simonson of New York in regard to the efficacy of the homœopathic remedy in this disease. At the New York Homœopathic Hospital two wards have been given over to the treatment of these cases, and Dr. Simonson has unselfishly devoted his summer, giving up most of his private practice and denying himself a vacation for this purpose. The homœopathic remedies have all been administered in the 6x potency, and have been principally *Curare*, *Hydrocyanic Acid*, *Conium* and *Gelsemium*, and have given the best results when administered intraspinously. So far there have been five deaths in forty cases treated, and in each fatal case death has occurred within forty-eight hours after

admission to the hospital, all fulminating cases. Such success shows absolutely the unfairness to the general public as well as to the homoeopathic profession of denying us representation on Municipal Boards of Health, and the opportunity of treating patients unfortunate enough to contract contagious diseases. We *must* have our own wards in all such hospitals, and the sooner the better.

The Society passed a resolution endorsing the action of the delegates at Baltimore in the Congress of States, and expressed its willingness to accept federation with the American Institute of Homoeopathy as soon as the working details have been arranged to the satisfaction of both bodies.

This year's meeting even exceeded expectations and was the best attended meeting for many years. The Berks County Medical Society was most generous in its entertainment and deserves the hearty thanks of the Society for its efforts and results.

W. M. H.

THE VALUE OF RECENT LABORATORY TESTS IN THE DIAGNOSIS AND TREATMENT OF NEPHRITIS, WITH SPECIAL REFERENCE TO THE CHEMICAL EXAMINATION OF THE BLOOD.—Dr. Arthur F. Chase and Dr. Victor C. Myers of New York presented this paper, which was read by Dr. Chase. He said the chemical examination of the blood in nephritis was often of greater diagnostic and prognostic value than the chemical and microscopical examination of the urine, the blood pressure, phenosulphonephthalein test, etc. The case of excretion of the three most important nitrogenous waste products, creatinin, urea, and uric acid, appeared to fall in the order just named, probably owing to purely physical laws of concentration and solubility. Thus a lowered kidney activity should become evident first by the retention of uric acid, later by urea, and lastly by creatinin. A retention of uric acid alone should form an early diagnostic test; an appreciable retention of creatinin should constitute a grave prognostic sign, a view well supported by their own observations. As a gauge to the acidosis which occurred in many advanced cases, they had found Van Slyke's method of determining the CO₂ combining power of the blood of great value. Of the large number of methods used in the past few years to estimate the functional capacity of the kidney, they felt that the following were of practical use to the general practitioner: Phenosulphonephthalein test, the determination of the fixation of the specific gravity of nocturnal polyuria and the estimation of the blood content of the uric acid, urea, creatinin, sugar and CO₂ combining power. These tests, they believed, were distinct contributions to medicine and had come to stay. The amount of nitrogen in the blood served as a most excellent guide in the giving of protein. The use of salt-free diet in cases of parenchymatous nephritis with edema and salt retention gave prompt results.

GLEANINGS

THE CONSUMPTION OF MEAT.—The question of diet is beginning to receive that amount of consideration which its importance deserves, for in the prevention and treatment of disease it is now freely recognized that diet plays a large part. There are diseases which are caused directly by unsuitable foods and there are many diseases and conditions which may be prevented if due care is paid to the quantity and quality of the food ingested.

The undue consumption of meat has been regarded by many authorities as one of the main causes of digestive disturbances which may frequently lead to chronic constipation, intestinal stasis, and alimentary toxemia and which, according to Metchnikoff and Lane, bring about various diseases and affections of a more or less serious character. Especially has the contention been made that meat is the chief factor in the causation of arteriosclerosis, high blood pressure, and gout. Allbutt says that so far as the consumption of butcher's meat is concerned, one or two definite and separable crystalline products produced from proteins by bacteria, especially by a specific bacillus of the coli group, can affect the blood pressure.

Luff, in Sutherland's "System of Diet and Dietetics," ventures the opinion that the contention that a meat diet is poisonous to the human body on account of the uric acid it contains or produces is preposterous in view of the fact that many races have maintained robust health on such a diet, and that for centuries the beef-eating Britons have managed to spread and advance civilization, and to acquire territory in all parts of the world. It might also be mentioned that the Germans are large meat eaters and they seem to be fairly strenuous and active and exhibit no palpable signs of physical deterioration. Dr. Harry Campbell, in his series of articles on "The Evolution of Man's Diet," asserts, rather unconvincingly, that man has evolved from the ape on a highly animalized diet, and that it was on such a diet that the intellectual faculties and the power of language which distinguish him from the beast were developed.

The proteins of animal food are much more completely absorbed than those in vegetable foods. Meat is almost entirely consumed, about 97 per cent., and there is very little residue left in the bowel. This is, however, a manifest disadvantage. The percentage of residue in vegetable foods is very high. In potatoes 32 per cent. being left, while in carrots, beans, and lentils about 40 per cent. is left. The special value of proteins is that they are generally considered as the only true tissue builders and repairers. Muscle and other tissues consist chiefly of proteins, and it is from the nitrogen containing proteins that they alone can be built. These, of course, can be obtained from vegetable foods as well as from those of animal origin. The ox, whose flesh is popularly regarded as the best "blood-forming" food, is typically a vegetarian.

With regard to the diet of an individual, and perhaps particularly with respect to the animal protein consumption, his age, his manner of life, and the climate must be taken into consideration. A man in the prime of life and vigor doing hard manual labor in the open air manifestly requires more food than the one who leads a sedentary life or is advanced in age. The vigorous hard worker can usually digest and assimilate large quantities of animal protein food. The man leading a sedentary life does not need so much food whether it be protein, carbohydrate, or fat, and whether it be animal or vegetable protein, and the man of advanced age whose powers are failing requires a food which places the least amount of strain upon the organs of digestion, assimilation, and excretion. It must be borne in mind, too, as Noel Paton says, that the availability of almost any article of food varies with the state of the teeth and the digestive organs of the individual, with the manner in which it is eaten, whether leisurely or too rapidly and without proper mastication.

While the pendulum of medical opinion seems to be swinging in the direction of a reduction in animal protein as an article of food for adults, it will not be wise to dogmatize too much as yet. There is little doubt that the habitual consumption of too little protein exposes the individual to a lowering of vitality, which expresses itself in a greater liability to suffer from infective disease. On the other hand, the consumption of too much protein unquestionably accelerates the progress of the degenerative diseases of heart, arteries, and kidneys.—*Medical Record, Editorial.*

TREATMENT OF PERNICIOUS ANEMIA BY SALVARSAN.—Bramwell of London recites the progress of 21 cases of pernicious anemia he has treated by salvarsan. Since Bramwell introduced the arsenical treatment of pernicious anemia in 1875 he has had a large experience of the disease. He has notes of 141 cases, of which 110 were treated with Fowler's solution. He gives his impression of treatment.

The immediate result of arsenic by the mouth. Of the 110 cases treated by arsenic by mouth (Fowler's solution), in 36 cases (32.7 per cent.) there was no improvement; in 22 cases (20 per cent.) there was slight improvement; in 40 cases (34.5 per cent.) there was marked improvement; and in 14 cases (12.7 per cent.) there was complete (? temporary) recovery.

The immediate result of salvarsan and neosalvarsan. Of the 21 cases treated by salvarsan or neosalvarsan, in 6 (28.5 per cent.) there was no improvement; in 3 (14.2 per cent.) there was slight improvement; in 5 (23.8 per cent.) there was marked improvement; and in 7 (33.3 per cent.) there was complete recovery.

The ultimate result of arsenic by the mouth. Of the 110 cases treated by Fowler's solution, in 12 cases (10.9 per cent.) the ultimate result is not known; in 4 cases (3.6 per cent.) the patients remain fairly well; in 2 cases (1.8 per cent.) the patients remain quite well; in 92 cases (83.6 per cent.) the patients have died. Of the 92 fatal cases in this series, 85 died from pernicious anemia and 7 from other causes (4 from pneumonia, one from heart disease one from cerebral hemorrhage, and one from hemorrhage from the bowel).

The ultimate result of salvarsan and neosalvarsan. Of the 21 cases

treated by salvarsan or neosalvarsan, in 1 case (4.7 per cent.) the patient remains fairly well; in 5 cases (23.8 per cent.) quite well; in 15 cases (71.4 per cent.) the patients have died. Of the 15 fatal cases in this series, 13 died from pernicious anemia (in one of these death was due to bronchopneumonia, which developed ten days after the first and only injection of neosalvarsan), and 2 from other causes. The average duration in months after the treatment was commenced in the two series of cases was as follows:

A. Of the 110 cases treated by Fowler's solution, the result is not known in 12 cases; in the remaining 98 cases (6 still alive and 92 dead) the average duration since the treatment was commenced is 14.3 months.

B. Of the 21 cases treated by salvarsan or neosalvarsan (6 alive and 15 dead), the average duration since the treatment was commenced is 12.5 months.

The comparison between the ultimate result in the two series of cases is not a fair one, for the length of time which has elapsed since the salvarsan treatment was commenced is very much shorter than that since the arsenical treatment by the mouth was commenced in the great majority of cases, which are still living, and which have been treated by salvarsan and neosalvarsan, will probably relapse and die. The percentage mortality in the two series of cases is therefore, in the meantime, unreliable.

The same statement applies to the average duration in months after the commencement of the treatment in the two series of cases.

Further, unless large numbers are compared, the comparison is apt to be fallacious, for the severity of the cases included in one series may be greater than the severity of the cases included in the other.

In giving salvarsan or neosalvarsan in cases of pernicious anemia the writer has always employed the intramuscular method of administration: 1, because in pernicious anemia a remedy is wanted which will produce a sustained and continued rather than an immediate and temporary effect. 2, because in severe and advanced cases of pernicious anemia (in which the patient's hold on life is very often precarious and a very little thing will turn the scale) the intramuscular has seemed to him to be a less hazardous procedure than the intravenous method.

In his earlier cases he employed salvarsan, and in the later cases neosalvarsan. The local effects produced by neosalvarsan are undoubtedly much less severe—much less local pain, inflammation, hardness, and swelling—than those produced by salvarsan. The constitutional effects were slight and not more marked in the cases in which salvarsan was employed.

The injections of salvarsan and neosalvarsan were in some cases followed by a slight rise of temperature and pulse, and in some cases by vomiting. In the cases treated by salvarsan the rise in temperature was usually most marked on the third or fourth day after the injection, and coincided with the greatest intensity of the inflammatory hardness and swelling in the buttock. The vomiting was chiefly seen in the cases in which neosalvarsan was given—it was, perhaps, due to the novocain, heroin, or morphin which was administered before the neosalvarsan was injected. The local inflammation produced by salvarsan was usually relieved by an ice-bag applied locally. A dose of novocain, heroin, or morphin was

usually given before each injection of neosalvarsan, and was repeated, if necessary, two hours after the injection, and again if the pain was not relieved.

He doubts if neosalvarsan is as effective in the treatment of pernicious anemia as salvarsan.

In some of the 21 cases treated by salvarsan or neosalvarsan which died from the disease, the immediate beneficial results of the treatment were very striking. In some of the cases in which the improvement at first was only slight, very marked improvement ultimately occurred. In 19 of the 21 cases treated by salvarsan or neosalvarsan, Fowler's solution had previously been employed.

One great advantage which salvarsan and neosalvarsan possess over the long-continued administration of arsenic by the mouth, in the treatment of pernicious anemia, is that salvarsan and neosalvarsan do not produce peripheral neuritis, whereas large doses of arsenic given by the mouth in cases of pernicious anemia often do produce, in addition to other toxic symptoms, dryness of the throat, irritation of the conjunctivæ, pigmentation of the skin, keratitis, diarrhea, vomiting, etc., and very severe and intractable peripheral neuritis.—(*Brit. Med. Jour.*, March 6. 1915.)

SYPHILIS AS A PROBABLE FACTOR IN VAGUE STOMACH DISORDERS.—Dr. Cabot Lull of Birmingham, Ala., read this paper. He said that notwithstanding modern methods for thorough diagnosis of stomach conditions there still was too large a class of so-called "functional diseases" of the stomach which in reality were made up largely of sufferers from visceroptosis, pyogenic infections, early myocardial or valvular disease, hyperthyroidism, latent tuberculosis, and syphilis. There was a rapidly growing literature of organic syphilis of the stomach, diagnoses now being based on positive clinical *x*-ray and sesological findings in spite of the contention of pathologists that the disease was rarely demonstrable in tissue examinations after operation or post mortem. Since Warthin found spirochetes in cardiac muscle, as well as in other organs which showed no lesion, which according to the older knowledge would be classed as syphilitic, one might accept his theory for the period of latency in persons who though free from symptoms for decades showed abundant organisms in their tissues. He assumed that a symbiotic relation existed between the organisms and the body cells. This view of latency in symbiosis would explain more satisfactorily such phenomena as the late parasymphilitic manifestations and the negative complement fixation test which became positive after provocative doses of antiluetic remedies. Several illustrative cases were cited and, in conclusion, the essayist expressed the opinion that the recognition by laymen and physicians of the widespread prevalence of syphilis, often of mild type and non-venereal in origin, with a more definite and satisfactory interpretation of the Wassermann reaction would lead to the relief of many cases of functional stomach disorder now neglected.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY DR. DONALD MACFARLAN
PHILADELPHIA

GAS POISONING.—The records of over-dosing in sickness proved of much value to Hahnemann in eliciting the primary action of a drug. In the light of the present great conflict on the other side, much can also be adduced by men unfortunately "gassed" during military manoeuvres.

Poison gases were investigated in Germany for years by Lehmann and his pupils from the ostensible point of view of making safe the dangerous trades. A critical survey of these papers leads to a conclusion which is inevitable, to wit, if any gases were used in the advent of war, those gases would have to be either *chlorine* or *bromine*. They alone would meet the needful requirements (1) that 1 in 10,000 concentration rapidly puts a soldier out of action—by asphyxiating him, owing to its intense irritative property; (2) they are much heavier than air; (3) they are manufactured in huge quantities in trade processes; (4) they are easily compressible into cylinders for convenience of transport and handling.

Moreover, a respirator is easily contrivable to protect the person who manipulates the brigade attack. It is quite obvious that no drift gas can be used offensively from which the users are unprotected. The power of liquifying a gas by cold or pressure, or a combination of the two, enables the chemist to get into a convenient form large quantities of these deadly gases, but the turning of these liquids back into gases may be troublesome, the heat withdrawn during volatilization may be so great as to freeze the nozzle and stop the outflow. Special devices are required to produce the expulsion of the gas some distance in front of the trench and to prevent the retardation of flow by freezing.

Nitrogen peroxide can be liquified below 26 degrees centigrade. In comparison with chlorine, used in weak concentrations, it has a delayed irritative action on the lungs, and therefore, owing to its want of stopping power, is far less suitable for use. Firemen are sometimes exposed to fumes of nitric acid—for example, after the bursting of carboys; they are unaffected at the time but develop a fatal inflammation of the lungs during the next twelve hours. As the oxides of nitrogen play so important a part in the manufacture of explosives, it is unlikely that the peroxide should be used as a drift poison gas.

BROMINE.

Bromine vaporizes at atmospheric pressures and boils at 59 degrees centigrade. It is far heavier than and *as powerful an asphyxiant as chlorine*. Germany produces almost the whole of the European supply.

It has been said that certain bromine organic compounds have been extensively used by the Germans in asphyxiating and lachrymating shells. The vapors of these substances in concentration as little as one part in several millions of air are said to put a man out of effective action by *causing watering of the eyes and inability to open the eyes, so specifically irritating are they to the conjunctiva. They are said also to cause in greater concentrations irritation of the respiratory mucus membrane.*

CHLORINE.

Chlorine can be made very easily by heating a mixture of hydrochloric acid and black oxide of manganese, or by electrolytic processes. It can be stored in lead-lined cylinders. The gas above the liquid chlorine exerts a pressure of at least 90 pounds per square inch, so that all that the Germans required to project chlorine was a long tube projecting in front of the trench parapet and a valve. The spray turns into a yellowy-greenish vapor, and owing to its weight drifts with the wind along the ground. Any one who has watched smoke from a weed bonfire drift over a field, will see how far the chlorine vapor may be carried in poisonous concentration.

It will sink into trenches, shell-pits, mine-craters, cellars, and dug-outs. To produce a concentration extending ten feet up, of one in ten thousand during a period of ten minutes in a wind blowing uniformly four miles an hour, over one thousand cubic feet of gas are required for each hundred yards of front. This is leaving out of account diffusion and the ventilating power of the atmosphere. It is clear, then, how large a volume of gas is required for an attack, and how any gas which does not come up to the 1 in 10,000 standard must be ruled out.

EFFECT ON LUNG STRUCTURE.

Just as lymph is poured out after a superficial burn of the skin, or the application of a blistering fluid, or in a septic wound under the influence of bacterial toxins or antiseptics, *so does chlorine produce an exudation of lymph in the lungs. The osmotic pressure of the damaged tissue is raised, and the fluid pulled out by osmotic forces, while through the damaged capillary wall, too, the plasma may actually leak away.* The classical first symptoms of inflammation thus appear, ending in stasis of the corpuscles in the capillaries owing to exudation of the plasma. In the earliest stage the salivary glands in the mouth and the mucus glands in the air tubes are stimulated to secrete, just as the tear glands flood the eyes. *It is this pouring out of the fluid in a vain effort to ward off the poison which causes the asphyxial symptoms of chlorine poisoning and finally drowns the man.* He is as surely drowned by the exudation as he is when he breathes water into his air tubes. Chlorine gas in every case expends its fury on the lungs. The nephritis is due to the intense and prolonged dyspnea and the struggles for breath. This, at least is the opinion of Dr. Leonard Hill who also considers that albuminuria is a common result of the temporary dyspnea which athletes suffer in a race. It results in such a case from the want of oxygen in the kidney, just as it

does when the renal artery is temporarily occluded. No doubt the products of the damaged pulmonary tissue, absorbed during the days subsequent to the poisoning, have a toxic effect, particularly as the damaged lung becomes infected.

We are told that a typical case on admission is cold with a temperature, conscious but restless, with pulse slow and full, except in the collapsed cases. The face is cyanosed, intensely so in many cases, and the expression strained and anxious. The posture varies. In some cases, the patient sits propped up, with head thrown back gasping for breath; in others, he lies on the side, with his head over the edge of the stretcher in an attempt to aid expectoration. The respirations are jerky and hurried, often numbering forty a minute, and are associated with a choking cough, accompanied by a varying amount of frothy expectoration. With each inspiration the chest is expanded to its fullest, all the auxiliary muscles being brought into play, just as in an asthmatical paroxysm. This is the first or asphyxial stage. After the first stage the patient falls into a sleep, and awakes feeling much better. But after a few hours of comparative quiet, symptoms of bronchitis begin to manifest themselves. In the majority of cases these are not severe, because no doubt, nearly all the severe cases die in the first stage. In the cases which are kept alive with difficulty there is a short quiescent stage followed by intense bronchitis. The frothing gives place to greenish muco-purulent expectoration, consciousness to delirium, the temperature rises from subnormal to 104, the pulse becomes of small volume, with its rate increased perhaps to 160, the respirations are less choking but more shallow, and number up to 70 per minute before death.

From a consideration of the above it will be seen that the following are really symptoms of a guiding character and they may be seen in *von Lippe's Text Book of Materia Medica* under the caption *Bromine*.

- (1.) Low spirited and out of humor.
- (2.) Crying and lamentation with hoarse voice.
- (3.) Lacrymation (right eye) with swelling of the tear gland.
- (4.) Soreness in the nose with scurfs.
- (5.) Bleeding of the nose relieving the chest.
- (6.) Coryza, with sneezing; the margins of the nose, and the parts under the nose, are corroded, with stoppage of the nose.
- (7.) Inflammation of the throat, with net-like redness and corroded places.
- (8.) Burning from the mouth to the stomach.
- (9.) Hoarseness, aphonia; worse in the evening.
- (10.) Soreness and roughness in the throat.
- (11.) Tickling in the trachea during an inspiration.
- (12.) Dry, spasmodic, wheezing cough, with rattling breathing.
- (13.) Cough rough, barking, from tickling in the throat.
- (14.) Violent oppression of the chest, as from the vapors of sulphur.
- (15.) Sensation of weakness in the chest.
- (16.) Tightness of the chest (asthma).
- (17.) Stitches in the chest, (inflammation of the lungs, right side).

LEONARD HILL ; A. VON LIPPE.

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HOMŒOPATHY: ITS LAW, TRUTH AND ADVANCEMENT.

BY

J. M. HEIMBACH, M.D., KANE, PA.

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WE have again assembled here to discuss things that pertain to the future welfare of this Society and Homœopathy in general throughout the world.

I need not tell you that we must ever be alert to uphold our specific law of cure through an efficient, peaceful and highly organized body, that will wield an influence and power that must extend way beyond any individual efforts that any one of us might put forth. So far as I can learn this is next to the largest homœopathic society in this country and its influence should be felt in proportion to its size, or its constituency is not putting forth a united effort as it deserves.

The truth of the "Law of Similars" has been handed down to us through the past generations and it is up to us to take care of and develop this specific heritage. We are held responsible during our generation for the propagation of this great truth in the eyes of suffering humanity.

The principles of homœopathy are never safer than its repre-

sentatives are found to be vigilant. Our Society, of which we should all be proud, must do its work with all its might in whatever we are called upon to do day by day or its descent will not be justified nor its existence warranted.

Our real efforts to influence the development of progress in medicine must indicate a consciousness of community interest and objective nobility of mind. Selfish motives never work for the great good of humanity and always impede progress. It is on this ground that I invite a hearty co-operation of each and every member of this Society to do his or her share when called upon to write a paper or any service they might be asked to render.

We must still work on with the same convictions as our predecessors. The time to sit down in ease and luxury with a false sense of security has not yet arrived, but an aroused activity is necessary to reach the goal that is set before us. What is this goal? When the medical profession as a whole is willing to acknowledge the "Law of Similars" and incorporate it in their practice we can afford to lie down and disband as a separate organization, but not until that time if we wish to be true to our trust.

We are beginning to see glimpses of this goal when the most prominent men in the dominant school begin to openly acknowledge the truth of Hahnemann's discovery. The big men, however, are the only ones to have the courage to speak.

There are still a few scattered here and there who might refuse consultation with a homœopathic physician but they are few and far between and their mental caliber is necessarily of limited dimensions, or they never honestly investigated the truth thereof. It is just such men with their selfish motives predominating within them that delay the day when the dominant school will take an active part to prove or disprove the efficacy of the law.

It should be the desire of every conscientious physician to do better work if possible, no matter how that is accomplished. It is the strong sense of obligation to our patients that we wish to cure in the quickest, safest and most pleasing manner possible as long as it is legitimate and scientific. Any cure is scientific without a cavil of a doubt or such a thing could not be wrought. Because we cannot always make a scientific explanation is no reason why a certain cure is not within the pale of a scientific law. It is because our minds can grasp results bet-

ter than reasons and because we permit our memories to be transfixed by achievements rather than seeking for the varied causes that we are unable to explain the *modus operandi* of the internal homœopathic remedy. It is because we have to deal with an organic chemical process of proteid metabolism, effected through the mechanism of a central nervous system and the secretion of certain glands, that is doing its work so perfectly in the body with the life given forces of God that our ignorance still obliges us to kill this propelling power in trying to solve the mystery in our laboratories. The laboratory man can only work with staple reagents, but a human being, with a distinct individuality and personality has a synthetic activity, a real creative power. In other words, we still have to make use of this human physiology, with this living spirit-like force to prove or disprove the efficacy of Hahnemann's dictum, *Similia Similibus Curantur*. We cannot evade this vital physiological, the most scientific test of all, for our final proof, no matter how many guinea pigs are being sacrificed to get the post mortem findings. These are only end results in animals that have neither the skin functions nor the governing brain power of a human being created only a little lower than the angels.

True, these animal experiments have been and they are still very valuable assets in the development of the medical profession especially along surgical lines; but is it not also true that this is the chief reason that we delight in propounding results and achievements instead of attaining a knowledge of the action of drugs before those gross pathological lesions manifest themselves. Is it not infinitely better to cure a pathological function before a pathological lesion develops? Is there anything in the whole domain of medicine that gives us a better guide in our prescriptions than the proven drugs on healthy human beings as long as internal medicine can possibly render service and right living is inaugurated?

This application of the law of similars in internal medicine is not of yesterday, but a century in its development. It has defied all scientific efforts to disprove the implied truth and made for itself a more secure place in the eyes of thinking men who approach the subject openmindedly and are not afraid to say with Dr. Charles H. Mayo that Hahnemann was at least eighty years ahead of his time. If this is true from the viewpoint of a man like him we still have the consolation and distinction that we are not a back number but leaders in our profession even

though we may be a minority. This minority will have to keep on the job until our principles and materia medica are taught in all the colleges throughout the land, yea! throughout the world. This minority must eventually become the majority if our law of cure is a fundamental truth of nature as we believe it is.

Differences in opinion in the profession will always prevail and there are just as diverse opinions in the profession on other subjects in the same schools and every one claiming a right to his opinion, and yet there are a few who still despise a homœopath because he takes a different therapeutic view from themselves. This is, indeed, narrowmindedness in the highest degree to minimize a man's ability and deny a privilege that he wishes to domineer and thereby exalt himself in the eyes of the public when there are no acknowledged differences in the allied sciences of medicine in all schools except the therapeutic application of drugs. It would be foolish to carry the argument any further if all the men in the dominant school would "do unto others as they wish to be done by," but as long as they will not give us full credit for our sincerity and efforts to promulgate this great truth we must keep our organizations intact with renewed energies.

The truth of the law of similars is no invalid. There is no functional derangement in its makeup. It invites close observation in any hospital ward by our most eminent clinicians and scientific investigators without prejudice and I wager the statement that many might become ardent enthusiasts for the cause, just like Hering, who investigated with the express purpose of condemning it and became almost the equal of Hahnemann himself and the father of homœopathy in America.

If some physicians in the dominant school would lay aside their lordship and humbly submit themselves as the servants of their patients for which they present themselves to the people instead of losing valuable time in fighting sectarianism in the medical profession, except demanding a thorough training and qualification, a universal goodfellowship would prevail among all scientific practitioners of medicine and surgery.

We must gain momentum as the years roll on with all the added knowledge that can be accumulated from instruments of precision hitherto unknown and we must make use of every available advance in the science and art of medicine to prove or disprove our place in the profession. With this liberal view and unselfish devotion to advancement we invite all the research

laboratories and better still a liberal donation from philanthropic persons to build such a laboratory in Washington or any independent place where all our homœopathic colleges could feel free to lend a helping hand without feeling as if they were treading on someone else or being trod on by others. In this way the truth of every symptom could be established and given its proper place both from a physiological and pathological viewpoint if at all possible.

As we progress along all lines in the business world we find there is a tendency to gather together the different units that make up certain lines of trade. This is brought about to centralize power and to transact business with all time and labor-saving devices with economy and dispatch. This trend of affairs should also affect the homœopathic profession as a whole in such a way that every individual practitioner should be linked to his profession from his local society to State society and the National body, The American Institute of Homœopathy. The necessity of such a welding together is no idle dream if we wish to uphold the traditions of our principles in the most telling manner.

The first steps were taken in Baltimore by the national body. The Congress of States unanimously voted to federate on a geographical basis which means a three step plan, county or district units, State and National body. The American Institute of Homœopathy should be the hub of the wheel, the State societies the radiating spokes and the county or district units the felloes and iron rim on which all must revolve.

To get in line with this movement our State organization should adopt federation by resolution, change our constitution and by-laws to conform with the constitution and by-laws of the American Institute of Homœopathy. We should agree to stand by this plan of organization of said Institute and all homœopathic clubs and societies in the State should thus federate with the Homœopathic Medical Society of the State of Pennsylvania.

The Congress of States at Baltimore unanimously adopted this plan and it is now up to the trustees of the Institute to pass upon it. I am sure we all regret that they will not have their meeting until September 26th, so that we might carry the work forward to a more speedy conclusion; but I see no reason why the proper resolutions should not be passed contingent on the action of the trustees of the Institute, and my suggestion is that

such action shall be actually taken at this meeting, because such changes will have to lie over until the next annual meeting before they could be finally adopted. This would give all the county and district organizations an opportunity at our next annual meeting to send delegates to discuss the actual needs and relations these subsidiary bodies should bear to the State Society.

Therefore, I would suggest:

First: That each local society voting to federate with the State Society would automatically bring its entire membership into the Society.

Second: I recommend that the delegates from the local societies be given the power to nominate all elective officers of the State Society and for this purpose they shall annually present the names of at least two, but not over three members of the State Society for each elective office.

Third: The apportionment of delegates should be two delegates from each society or club. One additional delegate for each twenty-five members or fraction thereof, but in no case shall any local society exceed five members. These delegates to be appointed or elected at least two months before the annual State Society meets. These delegates should take up the matter of dues, to be collected in the local society at its first meeting, and recommend to the society what they consider just dues to meet the expenses of the organization. If a unanimous action is taken in this matter the cost of dues should not be increased but rather reduced.

If a true fraternal spirit of fellowship and a desire for constructive work exists in the homœopathic profession, we should have very little trouble in consummating this plan in some form that will result only for the good of us all.

I would consider it a great advantage to this Society to make some change in the by-laws whereby the president would have the power to appoint a chairman or the society elect a man whose sole function would be to take charge of the scientific program. This chairman to appoint subchairmen for the different bureaus with the sanction of the president. This would distribute responsibility more widely and give the president more time to devote to executive functions and organization. It would also centralize the scientific preparation of the program and have it more harmonious and diversified in its scope. It is quite reasonable to take into consideration the difference

between a competent executive and a highly trained and efficient student of medicine, capable of observing medical progress and incorporating it in a program that would utterly escape the president who is very much otherwise engaged besides attending to his practice.

I would consider the advisability for a progression of vice-presidents so that policies of one man might be completed by his successor. It would afford the coming president an opportunity to interest himself in society affairs and thus become a more efficient executive and enable him to do better work for the Society. Especially is this true at the present time when federation of all the societies is under consideration.

In these strenuous days in Europe and even our punitive experience at the present time on the border reminds us that we are woefully unprepared in a medical and surgical way to meet any emergencies that might arise.

This has been the case in our Spanish-American and Civil wars. France had its own sad experience last year, yet we are slow to fully realize our responsibility as medical men to be prepared for active service. No matter how well we might be prepared to meet any demands as far as civilian physician and surgeon is concerned yet we might fall far short in the capacity of a medico-military officer. The latter must be trained as a leader and has a great many executive functions to perform that we know little about and much less how to do them. Congress passed an Act in 1908 to provide for a Medical Reserve Corps, as a constituent part of the medical department of the Army. This Act was passed with the intent of increasing the efficiency of the medical department of the United States Army during peace times so that the Secretary of War could draw on this reserve corps in times of war.

In all past wars this country depended upon the volunteer service and was, indeed, an expensive service and should be heeded in the future. Lately the name has been changed to Officers Reserve Corps and the service in war was made compulsory. To receive the necessary training and be of value in time of war, one has to take up field work with a correspondence course. Appointments to the Officers Reserve Corps are made by the President after the applicant has passed an examination before an examining board at some convenient time and place.

There is also another plan under way for preparedness in

the nature of organized units. This was brought out by Dr. Crile, of Cleveland, in an address before the Congress of Surgeons at Boston. The surgical unit is expanded into a base hospital or hospital unit, the units to consist of both surgical and medical services; the chief of each service to choose his professional assistants. Ward nurses will be obtained through the Red Cross. These units are to be organized by officers of the Officers Reserve Corps, and the chief of each service, surgical and medical, is to see that all members of the unit apply for commissions in the Officers Reserve Corps.

I would urge upon the members of this organization, who are between twenty-two and forty-five years of age, and citizens of the United States to get in touch with the War Department and enlist as individuals in the Officers Reserve Corps and take up the proper kind of training to be prepared for any emergencies that might arise.

There are, no doubt, men among us who have all the natural tendencies to be leaders and would make good chiefs to gather about them an organized unit that could be called upon at opportune times that would be a credit, not only to our State Society, but could render a magnificent service to the National Government in times of stress.

It is just as important for the Government to have a professional inventory as an industrial inventory to know how to adapt themselves in case of war. If the health of the soldiers is not properly conserved, the efficiency must necessarily be reduced.

The social evil is an ever-present monster in our midst that should always be considered. We make a great cry on the street corners and in our newspapers when a few cases of infantile paralysis or any other infectious diseases are reported, but not a word is said when individuals by the score are right in our midst infected with the spirocheta pallida or gonococcus of Neisser, either one of them claiming a larger death toll annually, to say nothing of the untold suffering in its wake, yet the physician who treats the case is supposed to hold the secret inviolate.

Is it because we are too sentimental and the subject too much in the twilight of sacredness to deal with it scientifically or do we fail to differentiate between uncontrolled passion and the intuitive instinct of love that our Creator hands down to us through our mothers? On the former we should have no com-

passion and wage a war of aggression to control its spread as any other infection, and the latter we should encourage and cherish with all the dignity of our profession by precept and example.

Would it not be a charitable act for a physician to inform an innocent young woman or her parents if he has professional knowledge of an infection in her intended? Would it not be justice if either contracting party would demand a health certificate from the physician that either party might designate? The social conscience must be awakened more and more and if we, as physicians, do not take an active part in controlling the social diseases, what can we expect from the laity?

This society should take a stand against the liquor question. A body of men and women who know and understand the effects of alcohol on the human system should not hesitate to take this advanced step. It has been but recently demonstrated by the most advanced experiments and instruments of precision that will leave no doubt in a scientific mind that a moderate dose of alcohol will impair mental and muscular efficiency from seven to ten per cent., to say nothing of the chronic alcoholic; and we must also remember that we are all pupils and teachers alike and we must advise and educate whenever and wherever it is possible. It looks fairly clear that the Workmen's Compensation Act, which became effective on January 1st, will help to solve the liquor question automatically because employers will not insure against injuries and take every precaution to reduce accidents to a minimum without discharging also the men who imbibe too freely on and off duty. It has taken Pennsylvania a long time to find an effective way to cope with the booze problem and we should not be so antiquated as not to take this advanced step in this organization. We, whose business it is to conserve the health of humanity and thereby raise our economical and social standards, should form a phalanx of men and women marching under a prohibition banner.

We should not knock the Workmen's Compensation Act on this account nor for any other reason. The Act undoubtedly is not what it should be, but the fact that ninety-five per cent. of our leading American manufacturers are in favor of an equitable automatic system of compensation for injured workmen is sufficient proof that it is here to stay and we should co-operate with the workmen, manufacturers and legislators to mold it into shape to do the greatest amount of good to the

greatest number of people. We must always keep an eye on constructive work because its progress is slow. These days, destruction is swift but invariably somebody gets hurt. We, as physicians and surgeons, are vitally interested in this law and we must contribute our share in weeding out the obnoxious features in it and substitute the things that will rectify evils to the extent of everybody's welfare with special privileges to none.

In conclusion, let me urge upon you the importance of loyalty to our organizations, local, State and National, and let us more fully appreciate our responsibility of trust to promulgate our law of cure in our generation and impress upon the people and profession that homœopathy is a contribution to medical knowledge in which we should take an honest pride, yet hold ourselves open to new advances that can cross the stream of honest criticism and make the people see that we stand for anything that has any real merit in the healing art and science; which surely puts us in the category as most unsectarian school of medicine in the world to-day.

THE TREATMENT OF PROSTATIC HYPERTROPHY.

BY

WILLIAM B. VAN LENNEP, A.M., M.D., F.A.C.S., PHILADELPHIA.

LOOKING back over nearly thirty-three years of surgical work, a considerable proportion of which has consisted of the major genito-urinary operations, one cannot but feel that the history of the treatment of stone in the bladder has but repeated itself in that of prostatic hypertrophy.

From the days of the itinerant "stone-cutters," ostracised by the Hippocratic oath, to the eminently respectable lithotomists of the last century, the perineal route has been that of choice. Only when the operator had failed to extract the stone, after dangerous damage had been done to the parts, or more rarely, when the calculus was known to be of unusual size, which meant one of long standing with its consequent pernicious effects, was recourse had to the suprapubic route. As might be expected, the mortality was practically prohibitive.

To-day, however, with modern asepsis, with improved technique, with the elimination of the bugaboo, urinary infiltration in the prevesical space, the *sectio alta* has come into its own. has become the operation of election, instead of a hopeless *dernier resort*.

The treatment of bladder stone is now clean-cut and well-established and may be summarized as follows:

1. Median perineal lithotomy for stones less than one inch in their largest diameter, or those that can be readily extracted without lacerating or overstretching the outlet.

2. The "litholapaxy" of Bigelow, or complete crushing and evacuation at one sitting, for soft stones, preferably of moderate size, the extent of the latter depending largely upon the experience and manual dexterity of the operator. Recurrences, however, are frequent, particularly in the presence of urinary stasis and catarrh.

3. Suprapubic lithotomy, the operation of election the world over and in all surgical hands with a modicum of skill and technique, on account of the perfect access it gives, the limitless size of the opening in the bladder and the subsequent prolonged and continuous drainage possible for the coincident catarrh of both stone and prostatic hypertrophy.

Sir Henry Thompson taught us years ago that even though perineal drainage be "dependent," it requires an inlying catheter to drain at all and an instrument through the deep urethra can only be tolerated for a limited period of time. On the other hand, every drop of urine entering the bladder comes out of a suprapubic wound, tube or no tube. A similar paradox is seen after external urethrotomy; remove all anterior constrictions and the urinary stream will "turn a corner," so to speak, and come out of the meatus, while the perineal fistula heals spontaneously.

Turning to the prostate, we first have resections or excisions, V-shaped or otherwise, and the perineal route was naturally again favored and the gland attacked in the recto-vesical interspace, through the transverse incision of Zuckerkandl or the median one of Dittel, extending around the anus to the coccyx. Later on, when epicystotomy was better perfected, similar resections were practised by McGill and his colleagues in Leeds and Belfield in Chicago.

The principle, however, was wrong, except as applied to small, middle lobe outgrowths or valves which we have burned

or cut off with serrated scissors through a suprapubic wound since 1891, and it was not until enucleation came into vogue that rational prostatectomy saw its inception. As we are wont to tell our classes, enucleation is like teasing an orange out of its rind, either entire or piecemeal, the enclosing veins being thus more or less completely avoided. The more thoroughly the capsule is emptied, the more readily it contracts and the resulting hemorrhage will be correspondingly less.

Owing to the danger of the earlier curative measures, there followed a series of attempts at palliative relief:

1. The accidental discovery of the result of a one-sided castration on a dog led us a merry chase after the mutilating gynecologists of the day, until the profound, resulting mental effects caused a modification of the procedure to a vasotomy, between a double ligature, an innocent operation, beneficent at times in its atrophic results, to say nothing more.

2. Hunter McGuire's "suprapubic urethra" is a purely palliative measure and it is safe to say that it has stood the test of time and remains to-day, with some modifications, one of our well-established methods of treatment. We have practised it extensively and still use it in certain cases. The sinus is preferably made on the principle of a coffee-pot spout, high up in the wound and the patient usually wears an inlying tube with a cork, but occasionally acquires a sphincter-like control and some power of expulsion.

3. The "Bottini operation" deserves a passing, possibly a historic mention. Like "litholapaxy" it is the evolution of the ideas of Mercier and his followers whose aim was a trans-urethral attack upon both stone and the prostate. The operation was extensively practised on account of the untiring efforts of its originator and the instrumental improvements of Freudenberg and others, but even its earnest advocates finally confessed their weakness by using a perineal, or far better, a suprapubic opening for the accurate application of the cautery.

It may be safely said that the method has all the disadvantages and the dangers of stone crushing with none of the advantages and that the Bottini instrument has been supplanted by the admirable "punch" of Young.

Following history and precedent, prostatic enucleations were done at first from below, either between the urethra and rectum (Young), or through a median, perineal opening (Gouley), and in order to bring the gland within reach, a number of trac-

tors were devised and even combined operations, high and low, were performed to accomplish the same result—a repetition, then, of the old-time, last resort epicystotomy. This only emphasizes the fact that an enlarged prostate must grow backward, *into the bladder*, away from the posterior layer of the triangular ligament and the moment it does so it becomes an intravesical organ, more and more accessible from above as it increases in size.

Among other disadvantages of the perineal route are an occasional incontinence of urine from overstretching or tearing the voluntary sphincter; wounds or sloughing of the rectum, producing urinary or faecal fistulae, epididymitis, etc., and these complications have occurred in the best of hands. To these should be added the inaccessibility of the prostate in the presence of a deep or fat perineum and haemorrhage; the latter, difficult to get at when coming from the capsule, more than one unreported case having bled to death to our knowledge, and even hard to control, at times, in the outside wound. We were taught to beware of these perineal haemorrhages by the older surgeons and were much surprised not long since to hear an operator say that no haemostasis was necessary in a simple, perineal urethrotomy. We were not surprised, however, to learn that the surgeon lost his head and his patient soon afterward from haemorrhage.

Perineal bleeding is usually controlled by haemostats, with or without ligatures, or a gauze pack, either around the tube or into an “umbrella” fastened near the tip of the latter. We have recently modified a plan used by Buckston Brown of London in the early eighties. A rubber bag around the heavy inlying catheter can be inflated with water through a tube leading into it, after the introduction of the latter, until sufficient pressure is made to control all bleeding.

After suprapubic prostatectomy we have an admirable haemostatic measure in the Hagner bag. The attached tube is drawn out of the urethra, the bulb remaining in the emptied capsule. Under the guidance of the finger introduced through the wound, the bag is distended by injecting water through the tube until the requisite amount of pressure is obtained.

Aside from the choice of operation, a question which the consensus of surgical opinion is fast deciding, the great life-saving advance in the treatment of prostatic hypertrophy is the accurate study of the renal function and the proper preparation of

these elderly men, with more or less damaged kidneys, with more or less advanced results of "back-telling," or even of "ascending infection," for any operative interference whatsoever. This is particularly true of operations for the relief of obstructions, stricture and prostatic hypertrophy, and after our earlier operations we learned to look for what we were wont to term a "uraemic crisis" which was not infrequently the precursor of death. With this came a decrease in the urinary secretion and, as we learned later, a fall in the pheno-sulphone-phthalein index. On this account, the first indication is to accustom the patient to the relief of the obstruction and wait for a rise in the above-mentioned index to a point where operation can be undertaken with safety—a total excretion, then, of at least 30% or more during the two hours. This relief is given by tying in a catheter and corking the same, emptying the bladder at regular intervals, watching the index in the meantime, until the cork can be dispensed with. It might be added that we follow the same plan with the tube introduced after an external urethrotomy in elderly men.

As the inlying catheter can only be tolerated for a limited time, or cannot be used at all in some retentions, a good plan is to open the bladder above the pubes, explore the prostate with the finger, introduce a self-retaining catheter and close the opening with a tight purse-string suture, again using the cork.

At the Congress of Surgeons in Boston last year, Cabot recommended a method in prostatic retention almost identical with one we saw used quite extensively by Dittel in Vienna during 1882 and 1883. Dittel's instrument, which I still have, is a curved trocar and canula, with a plunger to clear the latter, and an inner metallic tube with rings at its base, by which it can be stitched to the skin. The other instrument is a straight trocar and canula through which a self-retaining catheter is introduced, when the canula is withdrawn. .

Most of Dittel's cases I saw in the dead-house subsequently and, in consequence, the method was dropped. The patients were thought to have died from urinary infiltration into the space of Retzius, but it has seemed to me that the cause of death was more probably the sudden relief of tension and the consequent "uraemic crisis." The use of the cork obviates this. It is a safe plan to make a small skin incision or even to split the muscles before plunging in the trocar, a remnant, I presume, the old dread of urinary infiltration!

When it comes to the enucleation we have several types of growth to deal with:

1. Uniform hypertrophy of all the tissues and of both the lobes and the isthmus. This may attain an enormous size without distorting the urethra, in one of our cases producing actual bowel obstruction without retention of urine. These prostates are well adapted to enucleation.

2. The soft, or glandular overgrowth, often of very large size and distorting the outlet, but the ideal variety for peeling out.

3. The fibroid gland, containing a number of tumors not unlike those met with in or on the uterine walls. These are irregular tumors, and the interstitial tissue is sometimes quite hard. Enucleation should be practised, but occasionally the aid of the curette or the artificial, metallic finger-nail on a thimble is required.

4. The small, hard, distorting, fibrous prostate, a growth of the interstitial or even scar tissue, usually firmly adherent to the capsule. These often assume the shape of a "horse collar" and are at times very hard to get out. In some instances a thorough digital stretching of the fibrous ring, a "divulsion," so to speak, will suffice to relieve the obstruction, while in others the "punch" or the serrated scissors must be used to lower the level of the prostatic urethra to that of the trigone or pouch by removing the obstructing bar. With the present perfection of cystoscopy, we have found that the Young "punch," through the urethra, is occasionally indicated in this class of cases.

5. The cancerous prostate is exceedingly rare in our experience and even those cases in which the microscopic report was "suspicious" have remained well, possibly because the lesion was central and local. We have now such a patient under observation, however, in whom the pain and dysuria suggest a probable recurrence. By far the more common form is the "villous cancer" invading the prostate from the adjacent portion of the bladder, the trigone. We have met with but one sarcoma of the prostate, a round-celled growth, excision being followed by recurrence and general dissemination. (HAHNEMANNIAN MONTHLY, November, 1898.)

A word regarding the operative technique and I am done. Nitrous oxide gas and oxygen is the anaesthetic of preference and is always given in two tempo operations, local anaesthesia being occasionally substituted. Ether, which we generally use,

we are rather afraid of in these cases, especially since we recently saw a pulmonary apoplexy follow its administration.

The patient is prepared as usual, by emptying the lower bowel, a hot bath and a sweat, a local scrub and shave and finally benzine, alcohol and "seal-skin." The bladder is thoroughly flushed and moderately distended with boric acid solution, the staff introduced, the gas administered and the pelvis raised into the "Trendelenburg position." The muscles are quickly split, the apron of prevesical fat teased upward as far as possible, to carry the peritoneal fold out of harm's way, and two "guy-ropes" applied to the vesical wall, above and below. The last is done, even if the patient is wearing an inlying catheter, to steady the viscus. The bladder is then opened as high up as possible, the wound being stretched downward if necessary. Enucleation is done by passing the forefinger into the urethra until its tip comes against the firm, triangular ligament, when it is made to break through the mucosa to the patient's right and gradually peel the mass out of the capsule, sometimes in one piece, more frequently, first the right and then the left lobe. The cavity is flushed with right hot water and the tube attached to the Hagner bag is tied to the button-beak of the staff and drawn out through the urethra. The bulb is adjusted in the capsule by the finger, as it is distended with water until the bleeding stops. The drainage tube which is fastened by a string to the inner end of the bag is brought out of the upper angle of the bladder wound which is closed by a continuous suture of catgut, while the muscles and skin are drawn together with deep, interrupted stitches of Pagenstecher thread. A small strip of iodoform gauze is packed into the praevesical space through the lower angle. On the following day, usually, the water is let out of the bag and if there is no bleeding, tubes and bag are withdrawn through the wound. If drainage is indicated, a self-retaining catheter is introduced, otherwise the opening is allowed to heal, while a similar catheter through the urethra keeps the bladder empty. An occasional sounding is sometimes advisable if natural urination be delayed.

The patients are put to bed with the pelvis on a rubber cloth or Kelly pad, draining at the foot, while the head is elevated and proctoclysis instituted. Fluids are pushed and they are gotten out of bed as soon as possible. A persisting fistula is touched up with the galvano-cautery.

DISCUSSION.

DR. H. L. NORTHROP, Philadelphia: The reading of this paper reminds me of something that occurred thirty years ago this month, when I attended a meeting of this Society at the Hahnemann College, Philadelphia. Dr. Van Lennep then reported his first case of suprapubic prostatectomy; and, at the close of the discussion, he said, "I strongly favor this operation and should be glad to do it again, although my first patient died." (Laughter.)

Dr. Van Lennep referred to the removal of the prostate as being like peeling an orange out of its rind. This simile refers only to the pathological prostate, the hypertrophied gland. The normal capsule is tightly adherent to the contained glandular substance, and it is only when the gland becomes hypertrophied that the capsule separates more or less from the mass within, so that you can easily peel the latter out. This is just the reverse of the condition in the capsule of the kidney, which can be readily removed when the kidney is normal, but not when it is pathological. When the kidney is the subject of interstitial nephritis, the capsule adheres intimately to the renal substance, and can be removed only by tearing it away and injuring the parenchyma within it. This is a little point worth bearing in mind, and one that will be appreciated by the students in a class in anatomy.

I do not think that enough stress has been laid upon the importance of the two-stage operation. By opening the suprapubic structures down to the bladder and packing the wound with gauze, and, at a suitable time afterwards, opening the wound and completing the operation, the mortality rate is lessened. If the operation is done at one sitting, the risk is very marked. Some operators, indeed, advise that it be done in three stages—first opening down to the bladder; later, opening the bladder and cutting the wall; and at a third stage, removing the prostate.

I never refer to this subject without recalling the good work done by Dr. H. Packard, of Boston, who has especially called attention to the fact that the anterior part of the prostate behind the apex and behind the deeper layer of the ligament is thin, and is more easily broken than any other part of the capsule. He advises that it be broken here, and says that the enucleation will be much less difficult than when the capsule is attacked in any other place.

He has also called attention to a useful method of controlling hemorrhage from the capsule by massaging the

anterior of the capsule; or, in other words, the floor of the bladder.

These operations are being done more frequently, the mortality being gradually lowered, until it is now within a safe limit. The procedure should be resorted to more frequently, and should be done earlier.

DR. V. D. WASHBURN, Wilmington, Del.: One part of this subject not usually considered enough, but of marked importance, so far as the general practitioner is concerned, is the decision on his part as to when he should take the patient to the surgeon for possible operative interference. Dr. Van Lennep naturally has cases being brought to him by the general practitioner not infrequently too late for the best results to be obtained. It seems to me that it is very important that the general practitioner should realize that the patient who is complaining of frequency of urination, not only in the day time, but at night, and is commencing to show the signs of wearing out from loss of sleep, should not be kept on hexamethylenamine or other drugs, but should be taken to a person competent to do something in the way of surgical interference. It is a very nice question of diagnosis and surgical judgment as to when it is best to submit our cases of prostatic hypertrophy to operation.

I want to say that the procedure of what we call the two tempo operation, operating on the bladder one day, and taking the prostate out a few days later, is a sound surgical procedure, but should not be made a routine one, in my judgment. In patients whose index can be brought up and who can be put in good shape, it is my experience that the result is better when the operation is done at one sitting, thus avoiding the long stay in the hospital. I have seen uremias develop in cases in which I have done the two tempo operation, and thought that they would not have developed if I had done a quicker operation and had the thing over. I believe that there is a tendency on the part of some men to quickly remove the prostate from its capsule. I believe that careful work is safer than the rough, uncouth technique adopted by some.

There is one advantage that the suprapubic operation has, and that is that the patients very rarely develop a fistula: and if they do, the punch operation will, as a rule, reduce the cause of the fistula, and the patient will get well.

One point in the after care that I have found valuable with aged patients whose wounds are dirty, and who have a thick, adherent membrane that irrigation with hot solutions has failed to remove, is packing the wound tightly with ordinary

powdered boracic acid. This clears off the membrane and makes a clean wound.

DR. J. M. HEIMBACH, Kane: Is there any age at which operative procedure should not be resorted to, or any limit as to physical condition?

DR. VAN LENNEP: There is no age limit that I know of. The ordinary indications that you look for in any operation apply in a case like this, including the phenolsulphonephthalein index. That can be raised very often; but if not, you had better not touch the case. Then there are certain cases in which we use the "old catheter life." I have a patient who has used a catheter for twenty-seven years. He is a man of wealth, leisure and intelligence. He has a valet who sterilizes the catheter, and four times in every twenty-four hours the urine was drawn and the bladder irrigated. The average man, however, will sooner or later develop cystitis.

SQUILLS---FROM THE VIEWPOINT OF THE HOMŒOPATHIST.

BY

WILLIAM A. HAMAN, M.D., READING, PA.

DURING recent years, in fact since the pandemic of influenza in the winter of 1889-1890, the large increase in the number of cases of pneumonia that are of a grave type and end fatally has been appalling.

This, naturally, has increased the interest of the laity and physicians in this dread disease in so far as its successful treatment is concerned. As the season of the year is approaching during which pneumonia is prevalent I feel that the consideration of a remedy of merit, that can be regarded practically as an attempt at its renaissance in so far as its use by the rank and file of homœopathic physicians is concerned, will be quite *apropos*: One of the handicaps that medicine—an inexact science at best, if you will pardon the contradictory phrase, has to contend with is the frailty of the human mind in letting go the tried and good measures in its avid grasping for something that will yield better results.

Fortunately, this hope is often realized as witness the results obtained by the anti-pneumococcic sero-bacterins in suitable cases of unmixed infections; but, this is no reason for dropping

into desuetude that which has rendered signal service in other conditions of the same disease.

But just as often the vaunted and acclaimed drugs are found after extended use to be lacking in that they do not fulfill expectations and are then replaced by some other suitor for favor.

Another influence that seems to prevail with the homœopathic physician in making him indifferent to remedies that have unquestioned merit is their abuse in domestic medication, and by the average old-school physician, as witness the abuse of calomel, *digitalis*, *quinia*, squills, etc.

These psychological infirmities are largely responsible for the fads and fashions to be found in so respectable a profession as medicine.

From my contact with homœopathic physicians the students fresh from college I have been much interested in noting the lack of acquaintance with squills and its merits. This, on reflection, I find not at all singular when I note the scant attention accorded this drug by our homœopathic writers.

At this point I wish to remind you that squills has a decided action on three of the systems of the human body—gastro-intestinal, renal and pulmonary systems; this decided action being, as you will no doubt guess, the result of inflammation established in the organs concerned in the elimination of the acrid principles of squills.

In this connection it is noteworthy that our most dependable drugs, those upon whose assistance we can "gamble," are those whose action is the result of the irritation of the organs concerned in their elimination from the body; as examples we have *merc. cor.* and *colocynth.* in enteritis, *cantharis* and *terebinthina* in nephritis, *copaiba* in cystitis, *sanguinaria*, *cepa* and *benzoin* in the blennorrhagias of the respiratory tract—and it goes without saying that both schools are a unit in the use of these drugs.

In order to avoid prolixity I will confine my comments to the use of squills in affections of the respiratory organs.

Reverting again to the scant attention accorded squills by our writers on pulmonary subjects I confess to not a little chagrin at the prominence given and weight attached to the use of such remedies in pneumonia as *carbo veg.* and *lycopod.*, etc., drugs that primarily have very little direct action on the pulmonary organs and in consequence can not be regarded as

promising, and then note in contrast the scant attention conceded such a noble remedy as squills.

Instead of being given the premier position in one phase of pneumonia it is merely mentioned incidentally as a possible remedy should the symptoms suggest it—as “coughing ending in sneezing and involuntary urination.” So far as my knowledge goes it is not alluded to by any of our writers, save by E. M. Hale, of Chicago, with adjectives that arrest attention of the student and prompt him to attach to it more than an academic interest. Squills is the sliced dried bulb of the *urinea maritima*, a perennial plant of the nat. ord. *liliaceae*, growing on the shores of the Mediterranean Sea. Scillin, scillintoxin and scillipicrin are the recognized active principles. Five grains are the average dose of the powdered drug as given by the old school practitioners. Its action is very characteristic and follows its application to the skin as actively as when ingested and is expended on the lining membranes of the respiratory, gastrointestinal, and genito-urinary tracts. Its action is energetic, establishing actual inflammation of the membranes and, of course, the resulting symptoms are proportionate to the dose. Small doses, as might be expected, increase the juiciness of the structures through which the principles are extruded from the body. Large doses cause emesis and diuresis while poisonous doses excite nausea and harsh vomiting, purging, gastro-enteritis, stranguary with bloody urine and perhaps suppression, convulsions, paralysis and death with the heart in systolic contraction.

In this connection it is interesting to note that medicinal doses slow the heart, making the pulse stronger and raising arterial tension with diuresis; in this respect closely resembling *digitalis*—in fact some authorities use squills as a substitute for *strophanthus* and *digitalis* in cases of needed myocardial stimulation when the kidneys are not involved and *digitalis* must be abandoned; in these cases the tincture is used in the same doses as when *digitalis* is employed.

A study of the symptoms recorded as drug effects points to a general inflammation of the whole respiratory tract. All the symptoms of an acrid fluent coryza are produced as typically as are met with in influenza and measles accompanied by painful and sore nostrils and humid eruptions under the nose with much itching. If these symptoms are met with accompanied by frequent calls to micturition with either scanty or profuse urine

as one so frequently encounters in children—then it is unnecessary to seek further for a remedy. But it is in the lower respiratory passages that our interest in squills is chiefly centered.

Here also the symptoms recorded establish the inflammatory character of its action from the thyroid cartilage through the trachea, bronchial tubes, alveolar membrane and spreading into and through the connective tissue framework of the lung and establishing a pleuritis.

The pathogenesis of squills is particularly rich in symptoms illustrating its action on the pleural membrane and there is reason to believe that it produces a genuine pleurisy.

Hale says that squills is "undoubtedly a valuable remedy in pleurisy," and deplors the fact that "it is rarely mentioned among the remedies for pleurisy." He has more confidence in it than in cantharis, especially in children whose pleurisies are rapid and dangerous, when the pleuritic affection is attended with capillary bronchitis.

To my mind an uncomplicated pleurisy, i. e., a primary pleuritis finds in cantharis its best remedy. But when it is secondary to a broncho-pneumonia or is associated with a bronchitis then squills is the better remedy. This extension to the pleural membrane is very interesting to which we will again allude.

The indications for squills in bronchitis are based on a perfect homœopathicity in that it causes identical symptoms even to the preceding coryza. Hahnemann says: "Its primary effect is to increase the secretions of the bronchial glands and cause profuse expectoration but its secondary or actual inflammatory effect is to dry up the secretions causing fever and dry painful cough (if used in large doses)."

Squills seems to act particularly well in children and the aged and this is fortunate for in both extremes of life we find the greatest tendency to the development of the secondary pneumonia in which squills is particularly serviceable. Squills is an active drug and the 1x dilution is of ample strength for children under five years of age, according to Hale.

In actual involvement of the parenchyma of the lung squills renders its best service in the treatment of that form variously termed broncho-pneumonia, lobular pneumonia, capillary bronchitis and secondary pneumonia.

During the febrile stage of an acute primary pneumonia squills does not appeal to me; I suppose this is due to the knowledge of its self limited duration and its dependence upon a spe-

cific unmixed infection but, after the crisis, when resolution is going on it is useful in clearing up the associated bronchitis. One of the differences between acute and primary or croupous pneumonia and secondary or broncho-pneumonia is that in the latter the histological changes are more severe and pronounced.

In acute primary pneumonia the changes are practically limited to the alveolar membrane and are comparatively superficial while in broncho-alveolitis the inflammation is widespread, the inflammatory changes spreading into the substance of the walls of the bronchioles and alveoli causing an infiltration and interstitial thickening that is, histologically speaking, a striking characteristic of secondary pneumonias.

This ability of squills to inflame the entire respiratory tract in continuity from the tip of the nose to the pleural membrane makes it, in my opinion, without a peer in its homœopathic relationship to secondary pneumonias. The old aphorism, "put squills in every cough mixture," is a positive tribute by the old school men to its value in bronchitis and their abandonment of this drug in the higher degrees of inflammatory action which it might aggravate is an equally eloquent tribute to its specific action on the smaller ramifications of the bronchial tubes, a good illustration of the saying of Hughes that "their *contra* corresponds to our *pro*."

My experience with it in the broncho-pneumonias secondary to measles and pertussis in children and bronchitis in the aged thoroughly harmonizes with expectation and I entertain the belief that squills so completely meets the pathological conditions of *broncho-alveolitis cum pleuritis* from the viewpoint of the similar remedy that the likelihood of an empyema, that is so frequently a sequel in the secondary pneumonias of children, is reduced to a minimum.

In my experience of thirty years this sequel followed but once. The exhibition of squills after the first blush of the congestive and invasive stages has passed and then sticking to it stubbornly and not switching to other drugs every day to meet seeming indications will give results that are extremely gratifying.

Critical changes cannot be expected in this form of pneumonia and the duration is likely to run into weeks but the constant exhibition of squills will modify its severity and prevent the development of serious extensions of the inflammatory process.

Modern medicine has made tremendous strides in the past few decades, but in our elation we must not lose sight of the fact that the ancients were using drugs and measures that still are in good repute. All the more honor and respectful attention should be given the merits of a drug like squills that has been handed down to us from an antiquity that makes it hoary indeed.

Squills was referred to by Hippocrates (480 B. C.) Pythagoras (530 B. C.) and is mentioned in the Ebers papyrus, a handbook of Egyptian medicine dated 1550 B. C. So for the past 3500 years squills has been known and used as a medicine.

These historical facts viewed in conjunction with the many modern additions to our medical armamentarium naturally prompts the query as to the number of them that have sufficient merit to endure and have knights to champion them in the year of our Lord 5416.

TUBERCULOSIS IN CHILDREN.

BY

ANNA JOHNSTON, M.D.

IT is only in recent years that tuberculosis in children has been recognized to any extent as one of the frequent causes of infant mortality.

Dr. Betzski, of Berlin, through post mortem examinations, found that 10% of the infants examined had died of tuberculosis.

In Vienna, Hamburger and Ghon found out of 318 post mortem cases, 15% had had tuberculosis.

In the Holt Children's Hospital of New York, out of 882 deaths, 14% were caused by this disease.

The probable reason that, in the past, this disease has been overlooked in children is that it is not so easily recognized as in adults, nor have we had the facilities and knowledge for making our diagnoses as we have to-day.

It is quite easy to mistake this disease for marasmus or one of the many forms of malnutrition.

In all of these, as well as tuberculosis, we have the gradual emaciation and loss of weight.

Often during the first year, if the tuberculosis be located in the lymph nodes, and does not spread over the body, no clinical symptoms are present.

It is well to suspect, as an incipient case, one that shows gradual decrease in weight without there being any other clinical symptoms.

This disease is caused directly by the tubercle bacilli entering the system, either directly or by transmission from the patient, or by some external method, such as inhalation of the germs, or through the meat or milk of tuberculous cows, or any other food that has become infected with these germs.

It is a well established fact that children are very susceptible to the bovine tubercle, and this may be more of an etiological factor in producing this disease than has yet been established.

The British Royal Commission and the German Tuberculosis Commission, as well as numerous other investigators, gave the following conclusion :

Pulmonary tuberculosis was caused practically always by the human tubercle, while in children, a large percentage of the meningeal, "abdominal, bone and joint tuberculosis, and tuberculosis of the lymph glands, has been shown to be caused by the bovine tubercle bacilli."

Bovine tubercle bacilli are apt to be very abundant in milk when the cow's udder is affected by tuberculosis; while the udder may not show any sign of the disease, the milk might be infected by being contaminated by the feces or the uterine discharges of the affected animal.

There are certain diseases that are considered as etiological factors in this disease, in that they so debilitate the system, thus lowering the resistance, that it is an easy prey to these germs.

They are that group of infectious diseases that have a common clinical and pathological phenomena.

This group are alike in being highly infectious, by a tendency to occur epidemically, and by having a marked catarrhal inflammation of the mucous membranes over the entire body.

Probably the key to the connection between tuberculosis and these diseases is found in the catarrhal condition of the respiratory tracts.

Yet again, how much these diseases contribute to tuberculosis is a question on which there is some division, for it is based on the inhalation theory, which is not now so widely accepted as formerly.

Still we must not lessen our care of patients suffering from any of these diseases, for many treat, say measles and whooping cough, too lightly, not realizing the large percentage of fatalities following each.

This age is alert, and the aids to diagnosis of this disease are many and reliable.

With the splendid laboratory training of our young physicians of to-day, the hunt for the "tubercle bug" is easy and sure of success.

At times it is quite difficult to diagnose pulmonary tuberculosis in children.

If we follow the following outline given by Dr. Miller and Dr. Woodruff we can reach a satisfactory conclusion.

- a. Malnutrition.
- b. Pulmonary symptoms and physical signs.
- c. Enlarged cervical lymph-nodes.
- d. The tuberculine tests.
- e. Sputum examination.

To this I would add the X-ray examination of the lungs, which is very satisfactory in miliary tuberculosis.

To obtain the sputum from infants, either pass a catheter into the oesophagus or tickle the epiglottis with a piece of dry gauze by a curved clamp.

The tuberculin tests are three: the ophthalmic test, the von Pirquet and the tuberculin injection.

The Calmette ophthalmic method is to take one drop of 1% sterile solution of the precipitated tuberculin, drop into one eye, the lower lid being well drawn down and held for one minute so that the tuberculin is thoroughly diffused over the eyeball and conjunctiva. The lower lid is drawn and the conjunctiva and inner canthus are examined every hour or so, and the time and reaction noted.

Reactions vary in their time of appearance from three to sixteen hours after instillation; occasionally a reaction may occur in from twelve to forty-eight hours. Only a slight sensation of a foreign body is experienced. Usually a congestion of the palpebral and ocular conjunctiva occurs in a few hours, and the caruncle is hyperaemic and covered in some cases with a fibrinous exudate. Redness of the conjunctiva is not always present. As the reaction advances, lachrymation occurs and a fibrinous exudate resembling pus collects at the inner canthus. There is no pain, but a slight burning in the eye may occur oc-

asionally. In from 18 to 36 hours the conjunctivitis begins to abate.

It is well, if using this test, that a careful examination of the eye be made before undertaking this test, to be certain that the eye is in a normal condition, otherwise serious results might ensue.

The cutaneous or von Pirquet, is perhaps the simplest, safest and most satisfactory of all the tests. It is done by making three linear scratches upon the flexor surface of the forearm, and by rubbing the tuberculin into the second. The skin is then allowed to dry and then cover for a few hours with a piece of sterile gauze. The reaction takes place in from six to twelve hours,—occasionally it may not react for 36 to 48 hours.

Tubercular Meningitis.—There is a difference of opinion concerning the frequency with which tubercle bacilli can be found in the cerebro-spinal fluid in tubercular meningitis.

Dr. Sondern found out of 29 specimens examined, 22 in which the bacilli was found on the first examination. In two others the bacilli was found in the second examination.

The reason for making the lumbar puncture in preference to the inoculation test is that the latter requires too much time.

The pressure of the cerebro-spinal fluid has some bearing on the case. It is increased in tubercular meningitis. The color of the fluid in this disease is transparent and colorless.

For the other forms of tuberculosis besides the clinical history and symptoms, I would use the von Pirquet; if the first inoculation be negative, repeat the inoculation. It is of great value as a diagnostic aid, especially following whooping cough or measles.

Prognosis.—The prognosis is favorable or unfavorable according to the stages of the disease, the family history, and the environment of the patient.

Treatment.—It is the aim of the scientific physician of to-day to prevent disease as well as cure it.

A large percentage of the tuberculous, acquire it in childhood; it is to this period in life prophylaxis must be applied. Nourishing food must be provided. Exercise in the open air which stimulates the appetite, as well as assisting in the development of the body, is imperative. Cleanliness is absolutely indispensable. This fad of giving cold baths to infants in order to harden them, is over. The daily bath of infants during the earlier months should be 100° Fahr. It may be lowered to

95° Fahr. by the sixth month, and 92° Fahr. by the end of the first year. The bathroom should not be of a lower temperature than 70° to 72°.

Sea bathing is invaluable to children, but should not be resorted to before the fourth or fifth year, nor should they be allowed to stay in the water over five or ten minutes at a time.

Clothing should be adapted to climate, neither too warm in summer nor too hot in winter.

As for remedies, the calcareas, sulphur, silicea, lycopodium, arsenicum, tuberculinum or bacillinum, are some of the leading ones that we often find indicated.

CONSIDERATION OF THE MASTOID PROCESS.

BY

GILBERT J. PALEN, M.D., PHILADELPHIA.

THERE is no cranial bone which contains anatomically so much of importance as does the temporal bone, nor is there any which it is more difficult to understand. This statement is well borne out when you stop to consider that within the temporal bone we have those structures which have to do with the sense of hearing and furthermore, highly important structures having to do with the preservation of equilibrium. As one studies the temporal bone, and especially those portions lodged within this bone which have to do with the functions above mentioned, one cannot but stop to think what truly wonderful mechanisms these are and especially how minute the structures, the functions of which are so great. It is not our intention here, however, to give in detail the anatomy of the temporal bone as a whole, but to deal especially with the mastoid portion and we have mentioned the above few points to simply call attention to the fact that, on account of the contiguity of structure, the finer mechanism of the temporal bone must always be borne in mind in considering diseased conditions of or operations upon the mastoid process. Not only is the study of the mastoid an exceedingly interesting one, but to the one who will deal skillfully with the diseased conditions of this process the knowledge of this anatomy becomes an absolute essential. This can be gotten only by a careful study of a large number

of specimens of the temporal bone and repeated sections of this bone.

The study of the anatomy is a basic necessity for a thorough understanding of diseased conditions of the mastoid process. Through such a study of a large number of specimens one is impressed with the fact that there is no uniform formation of this process, as regards its general appearance, it varies very considerably in size and especially, upon studies of sections of this process are we impressed with the wide variations of its contents. Furthermore, we find upon studies of series of sections the remarkable differences in the thickness and density of the walls of the mastoid process. It is our view that these wide variations of structure are the causes of the different types of mastoiditis which occur and for the location and occurrence of many of the clinical symptoms and signs, and one making a careful study will arrive at the same conclusion.

If we take in our hand a skull and look at the mastoid process we find first that it articulates with the parietal and occipital bones and that anteriorly it is continuous with the squamous portion of the temporal, that its upper portion is limited in the majority of skulls by a ridge extending back from the zygoma, the so-called temporal ridge, that its extreme anterior upper margin is a small spine known as the supra-meatal spine or spine of Henle, that just posterior to this and beneath the temporal ridge, is a small triangular area in which are numerous small foramina, that the upper two thirds of the outer surface is, in the main, smooth while the lower one third and tip are roughened, due to the attachments of the sterno-mastoid and splenius-capitis muscles: that in many skulls, centrally in the extreme posterior margin of the mastoid there is an opening or foramen for the transmission of the mastoid emissary vein. (This, however, often falls within the occipital bone just back of the articulation of the mastoid process.) That the anterior portion of the mastoid process forms the posterior wall of the external auditory canal. If now the skull is held so as to view the mastoid posteriorly, we find that the lower portion exhibits a true nipple-like process (therefore called mastoid or breast-like) that the inner surface of this mastoid tip is smooth and in many specimens exceedingly thin, while in others a defect will be found leading directly into the mastoid process.

Upon looking at the inner surface of the skull we find a close relation to the lateral sinus and we note that this sinus passes

from its vertical to its horizontal portion almost invariably exactly at the parietal notch.

If now sections of the mastoid process which are so made as to cut it postero-anteriorly and extended forward to include the middle ear and eustachian tube, we can then study the walls of the mastoid and the contained structures. With such a series of specimens before us we are at once impressed as we look from specimen to specimen how widely different they are as to thickness and density of the walls and also the great variation in the amount and character of the contents. We first note that this process or capsule consists in the main of two plates and as we study the different specimens we find that the distance of these two plates from each other varies considerably and it is at once apparent that this difference is due to the character of the contents. In the majority of the specimens the plates are widely separated due to the presence of a large number of bony cells varying materially in size and shape. This can be traced in some of the specimens well forward into the zygoma posteriorly to the parietal notch and tip of the mastoid process. In other specimens the cells appear only in certain portions of the mastoid process or they may be lacking entirely, the plates being separated simply by diploae or by tissue of a sclerotic nature. In this type of mastoid it will be found that as the inner plate approaches the outer, the cranial structures lying upon the inner plate also lie closer to the outer surface of the skull. In every specimen examined, however, no matter what its anatomical structure there is found in the upper anterior portion one large cell which is called the mastoid antrum, this communicating anteriorly by means of the additus ad antrum with the middle ear cavity. The study of this important cell shows anteriorly the close relationship of the upper posterior wall of the external auditory canal and the horizontal semi-circular canal with the middle fossa above; and with the posterior fossa and lateral sinus posteriorly. Studying the sections again we note wide variations in the thickness and density of the plates, in the one specimen the outer plate is the less dense, in another the inner plate and in others the roof of the mastoid antrum. From this brief description we thus see, as before stated, the lack of uniformity of the formation of the mastoid process, and we note also the relations with the middle and posterior fossae, the lateral sinus and bony labyrinth.

Retaining then in our mind the anatomical relations of the

mastoid process we are in position to understand the various complications which are liable to occur during the course of mastoiditis, realizing the wide variation in the anatomical structure of the mastoid we are in position to understand the reason for the occurrence of the clinical symptoms and signs and also understand why we do not always get the same clinical picture in mastoiditis. Given for instance a typical pneumatic mastoid, one in which there are large numbers of bone cells we can understand that the process will spread first through these cells before any pressure will be exerted upon the plates and that then the direction in which the diseased process will spread will depend to a large extent upon the resistance of the plates. In the diploeic type of mastoiditis where there is present only the antrum or few cells this diseased process will be limited to the cellular area.

THE DIAGNOSTIC VALUE OF BACTERIOLOGICAL FINDINGS IN ACUTE MIDDLE EAR INFECTIONS.

BY

JOSEPH V. F. CLAY, M.D., PHILADELPHIA.

THE accurate determination of the infecting organism in a given case of acute middle ear infection is not a simple procedure and the results of investigation along this line, whether for diagnostic and prognostic purposes, or for therapeutic suggestions have not proven generally reliable. In the handling of acute ear conditions, as in other lines of similar pathological processes, there has been a general rush to the culture tube and loop without a previous technical training in either aural investigation or bacteriological technique. To properly proceed with this line of investigation, it is absolutely essential that the operator be expert in aural instrumentation and in laboratory technique. Generally speaking, it is better to have the combined efforts of the expert aurist and the expert laboratory investigator for seldom is the aurist an expert and finished technician in laboratory methods nor is the laboratory man an expert in aural instrumentation.

In order to determine the causative agent in a case of acute otitis media better results are obtained if the first discharge

from the infected cavity be secured, that is the discharge obtained at the time the incision is made in the drum. Unfortunately far too many cases are permitted to go on to spontaneous rupture of the drum before the aurist sees them, and this is one reason for failure in determining the real causative agent. The ideal method of procedure in the unruptured cases is to cleanse the canal with alcohol, then administer nitrous oxide anaesthesia or primary ether, incise the drum and make culture directly from the myringotome. This method has been unsuccessful when the drum is opened under local anaesthesia, especially where bonaine solution is used, for this contains a large percentage of carbolic acid which undoubtedly adheres to the bistoury and renders the culture sterile. We have repeatedly failed to get culture where this solution has been used and in these cases subsequent culture of virulent bacteria have been obtained from the discharge.

The simple introduction of a sterile loop or cotton tipped probe into the canal filled with discharge is not accurate and the results thereby obtained are not to be relied upon. The external canal teems with staphylococcus and the large percentage of cases so cultured will show staphylococcus. These cultures must be taken from the middle ear itself or, that being impossible, from the discharge as it issues through the perforation in the drum. This is a procedure which should be undertaken by one who has the proper technique of aural instrumentation and knowledge of the anatomy. It is, of course, properly appreciated that the instruments must be sterile and the external auditory canal properly prepared before taking the culture. It is our practice to free the canal of all discharge by mopping with cotton. The canal is then mopped with fifty per cent. alcohol. With an otoscope, discharge is aspirated and again the canal is mopped. Then the discharge which follows, oozing or pulsating through the incision or perforation, is cultured. Undoubtedly many failures in the use of autogenous vaccines are not due to the vaccine but to the faulty methods practiced in obtaining the culture. It cannot be expected that a vaccine of staphylococci will influence a pneumococcus or streptococcus infection.

Experience has taught us that the clinical course of a case can be to a certain degree prognosticated by the findings in the culture and certainly it offers suggestions as to operative interference.

The finding of the streptococcus in the aural discharge makes us at once exceedingly anxious and watchful for the occurrence of early and extensive mastoid involvement. In a long series of cases showing the streptococcus in some form only one case escaped operation. This case was one of a nurse seen very early and given autogenous vaccine.

The streptococcus mucosus capsulatus is the one form most feared by aurists. This cocci seems to have a special affinity for bone, causing necrosis. It has a tendency to lie dormant for a period while repair is taking place and later break out as an acute conflagration with extensive destruction of tissue. This organism is held by many to be associated with the pneumococcus. That it is virulent and entitled to a special classification is generally agreed.

It has been our experience that cases presenting the true pneumococcus show less tendency to rapid or extensive complications. It has in many instances been observed in cases of acute otitis media complicating "grippe" and acute colds in the head. In a general way we would feel less anxious about a case presenting a pure pneumococcus infection.

As has been stated, the development of staphylococcus in a culture is open to question. That it is the cause of the otitis media is difficult to decide. Only after repeated properly taken cultures would we be justified in accepting it.

ARTERIO SCLEROSIS.

BY

A. E. HEIMBACH, M.D., RENOVO, PA.

(Read Before the West Branch Homœopathic Medical Society, July, 1916).

As we are all candidates, sooner or later, for the acquisition of sclerosed arteries and as statisticians place the physician at the top notch of the mortality list, this subject should not only interest us as general practitioners but should appeal to each one of us well worthy our most profound consideration.

Definition.—Arterio sclerosis is a thickening of the walls of the arteries caused by a chronic fibrous overgrowth chiefly and primarily of the intima followed by calcareous deposition, giving rise to localized or general narrowing of their lumen.

Pathology.—Arterio-sclerosis affects most often the aorta

and coronary arteries, but may be found in almost any part of the arterial system. There are two varieties: the *circumscribed* and *diffuse*.

In the circumscribed form, there first appear grayish swellings but slightly raised above the surface in the intima; these patches are often hemispherical in outline, their favorite places being in the arch of the aorta and at the origin of branches. They increase in depth and superficial area and, on reaching an advanced stage, their interior disintegrates into granular debris, forming an atheromatous abscess. As a result of this softening the intima often gives way and allows this material to pass into the blood-current, thus causing emboli.

The microscope discloses the fact that the primary changes of the circumscribed or nodular atheroma are to be found in the media and adventitia. They consist of local infiltrations around the vasa-vasorum and form spots of lessened resistance in these coats. The intima then becomes affected and proliferative changes occur, which finally ends in the formation of what is known as the atheromatous button. Thoma contends that this increased thickness of the inner coat occurs as a compensation for the growing weakness of the outer ones. Should this thickened intima disintegrate as above described rapid dilatation of the vessel is apt to occur and this spells aneurysm. The same accident may occur before the intima has reinforced the weakened outer coats.

In diffuse arterio sclerosis the morbid process is distributed throughout the greater part of the arterial system, the nodular form being usually combined with it in the aorta. Dilatation of the aorta and of its branches commonly coexist. Apart from the yellowish, translucent, elevated area, the intima may be smooth and the naked-eye appearances almost normal.

The coats, however, and especially the intima, are very much thickened. Microscopic examination brings to light an extensive proliferation of the subendothelial connective tissue and a hyaline transformation of the entire media, particularly in the larger vessels. The muscular fibers and elastic tissue have in advanced cases almost totally disappeared. Necrotic degeneration of the media, especially in the smaller arteries, is also observed and calcareous deposit, causing rigidity of the walls, occur among the later changes. This is particularly true of the so-called senile arterio sclerosis. Atheromatous abscesses that burst, forming atheromatous ulcers, are

likewise common pathological events in the aged.—(Anders.)

Accessible arteries, such as the radial and temporal, are often rigid and tortuous and in advanced cases may feel like a clay pipe broken into small fragments. In consequence of the narrowing of the vessels there may be associated sclerotic and atrophic changes in the kidneys, liver, heart, etc. When the lumen is occluded, gangrene is the result, especially in the lower limbs.

The effects of the various degenerative changes briefly and imperfectly described above are far reaching and are summarized by Dr. Goodno, as follows:

1. Diminished elasticity and resistance of the blood vessels.
2. Lessened capacity owing to encroachment on their lumen.
3. Impaired tissue nutrition.
4. Roughening of the interior of the vessels, thrombosis and embolism.
5. Associated sequential lesions in various organs, such as aneurysm, apoplexy, paralysis, cerebral softening, cardiac hypertrophy, interstitial nephritis with its symptom complex, gangrene; embolism and thrombosis of the mesenteric vessels causing infarction of the intestine, etc., *ad infinitum*.

Etiology.—While, in a general way, the cause of arterio sclerosis is advancing years,—for all sooner or later attain to the distinction of degenerate arteries,—predisposition and exciting factors play an important part in the production of the disease. The great predisposing cause is heredity, there being a direct transmission of a tendency to arterial degeneration as well as a disposition of some families to grow old during the comparatively early years of life. It would really seem as though certain individuals were endowed at birth with limited vitality. In childhood they are adults in more ways than one, and at the early age of forty-five, they are universally recognized as old men. This premature senility is dependent upon degenerate arteries and diseases associated with it. As Osler said, bad material was used for the tubing in the make-up of the machine.

In other instances, however, the tendency to arterio sclerosis is more limited, and some bad habit, mode of living, or a vicious circuit in our metabolism is necessary for its production; and here again, certain individuals succumb to external influences much more readily than do others. Aside from heredity,

the various exciting causes are made more active by certain diatheses, notably gout, rheumatism, diabetes, syphilis and the neurotic constitution.

Of the exciting causes, we have the great physical exertion required in certain vocations, as that of the blacksmith, boiler maker, the professional athlete, etc. In them the arterial changes are usually secondary to cardiac hypertrophy. Here also, alcohol and improper feeding may be associated factors.

Neurotic influences most unquestionably produce increased arterial tension and this in turn arterio sclerosis. Thus we have an explanation of the early ageing of persons long exposed to worry, anxiety and distress.—(Bartlett.) Another causative factor is the strenuous modern professional and business life, contending, competing and scrambling for notoriety and the mighty dollar, bolting of food while reading the newspaper, participating in late banquets, worshiping at the shrine of Bacchus, and living beyond one's means. A reckoning is sure to come and the Devil will exact his toll.

Different theories are advanced by the French as to the cause of arterio sclerosis. Lancereaux calls it tropho-neurosis. Huchard says the disease with its accompanying hyper-tension is a consequence of systemic poisoning or intoxication and which comes from malassimilation of food, affecting the vasomotor nerves. Dr. Lorand, Carlsbad, Austria, has shown, clinically and experimentally, that old age is due to degeneration of the ductless glands, more especially the thyroid, ovaries and testicles, showing that the changes in these glands are primary and degeneration of the arteries and tissues in general, follow as a consequence. He also contends that there is a hyper-activity of the adrenals and inactivity of the pituitary body. Sajous, in his "Internal Secretions," and other noted investigators entertain similar views.

Recent clinical research and drift of opinion of the acknowledged present day medical leaders seem to establish the fact that the prime etiological factor is hypertension induced by excessive indulgence in stimulating foods, condiments, alcoholic beverages, tobacco excess, together with the product of faulty metabolism and intestinal infection as well as dyspepsia in general; then follow gouty conditions and gravel rheumatism, lithiasis, lead poisoning, diabetes, syphilis, malaria, the menopause, and faults in the nervous system. The causes then are complex in nature.

The arterial muscles held thus in the condition of extreme tension for months and years undergo degeneration, arising, as stated by Brunton, "from the diminished movement in the muscular walls due to this high tension." At first fatty degeneration takes place, there being no periods of release so essential to permit the institution of metabolism, the process finally ending in a calcareous structural change. Negroes are more liable to the disease than whites, males more than females.

At the recent convention in Philadelphia of the American Association for the Advancement of Science, Dr. Fisk made the startling announcement that while in Great Britain the mortality from diseases of the heart, blood vessels and kidneys, remained stationary for nearly thirty years, in this country, in the same period, there has been an increase of 83%; and he caused quite a stir among those present when he pointed out the dangers of an insidious food poisoning leading to arterio sclerosis and diseases allied with it. He, of course, refers to the present-day treacherous and deceitful methods of mixing antiseptic chemicals with food products to insure their preservation.

Symptomatology.—The disease may exist for years without becoming apparent; or it may even be discovered incidentally at autopsy while palpating the arteries during the course of examination for some supposed local visceral affection. The symptoms depend to a great degree upon the regions which have become the seat of the morbid changes. As a rule persistent arterial hypertension is indicative of arterio sclerosis. Definite sclerotic changes may not as yet be in evidence, but the high arterial tension should serve as a beacon light to the physician like the red light in a semaphore to the engineer who throttles down his engine, puts on his brakes and thus avoids the almost certain accident should he enter the approaching block at full speed.

Physical evidences of the disease, when once established, are only revealed by examination of the heart and arteries. The vessel wall is hard and it is often difficult to obliterate the pulse even upon firm pressure. As a result of this rigidity, it is hard to estimate the vascular tension. The radial, temporal, femoral and brachial arteries should be interrogated when we suspect the disease.

It should be borne in mind that certain inaccessible internal

vessels may have undergone advanced degenerative changes while the superficial ones are normal. Thus the vessels of the kidneys, brain, etc., may be atheromatous and cause serious trouble without warning.

The left ventricle becomes hypertrophied as a result of peripheral resistance. In advanced cases, the apex is displaced an inch or more to the left of the nipple line. The first sound of the heart is prolonged and dull and the second sound over the aortic region greatly accentuated and ringing in character, thus indicating the high systemic tension.

Friedman and Corey contend that an important early sign is the lowering of the maximum audibility of the aortic sound from the third to the seventh dorsal vertebra, assigning the cause to an alteration in the shape of the arch of the aorta by atheroma.

Subjective symptoms may be absent for a variable period until the heart, kidney, lungs, or brain call attention to the disease. Following the hypertrophy may be cardiac dilatation with symptoms of valvular insufficiency. Dyspnea, palpitation and initial murmur are prominent. Angina pectoris may also be noted as a complication due to coronary atheroma, which latter also causes chronic degeneration of the myocardium with all its baneful sequelæ.

When the arteries of the kidneys are especially affected, these organs atrophy from want of sufficient blood supply and the symptoms are the same as those of the atrophic form of nephritis,—the contracted or senile kidney. The amount of albumen may be small and casts few; the quantity of urine excreted much increased; color pale; specific gravity low and urea diminished. Dyspnea and asthmatic seizures often attend. It may be impossible to say whether the renal lesion is primary or secondary. The symptom complex is that of the multi-headed monster,—cardio-vascular-renal disease.

The cerebral symptoms are quite varied and may consist of persistent headache, tinnitus, vertigo, syncopal attacks and failing memory. The intellect is enfeebled and softening from ischemia may develop. Hemorrhage, due to the high tension and atheromatous vessels, often occurs, which in turn causes paralysis, aphasia, etc. Again, we may have transient hemiplegia, monoplegia, aphasia and other suggestive evidence of permanent central trouble, but complete restoration from these may take place. These interesting features have not yet received a

satisfactory explanation. Some think them due to spasms of the blood vessels.

Arcus senilis is commonly observed in cases of arterio sclerosis. Emboli, secondary to cardiac complications, may also manifest themselves.

The ophthalmoscope reveals various changes in the eye-ground. The walls of the vessels are surrounded by a white border. They are often thickened in places, even obstructed. Sometimes yellowish fatty patches are observed. Their course may be tortuous, have dilatations and miliary aneurysms may be seen. Also intraocular hemorrhages may occur and likewise glaucoma.

Pulmonary atheroma, hemorrhage and embolism with their clinical peculiarities are infrequent complications.

Embolism and thrombosis of the mesenteric vessels, although considered rare, yet Trotter recently collected 366 cases, seven being original. The superior mesenteric vessels are involved more frequently than the inferior. Ante-mortem clinical diagnosis of mesenteric occlusion is difficult, only 13 out of the entire above series were so made.

Diagnosis.—Unless we are on our guard, the early cases are apt to be passed over unrecognized, even when they have the four cardinal symptoms—increased arterial tension, thickening of the vessel wall, hypertrophy of the left ventricle and accentuation of the aortic second sound.

Again, in the later stages of the disease, when the secondary changes in the heart and kidney are developed, we are very likely to overlook the primary disease and call it cardiac or renal as the case may be.

J. L. Morse (*Boston Medical and Surgical Journal*) says that out of 25 cases most of them came for relief of vertigo or headache. Grasset, Mendel, Morse and others consider vertigo an early sign of arterio sclerosis, hence it should be regarded as one of its diagnostic beacon lights. Hutchings states that the prominent cerebral symptoms are diminution of mental activity, vertigo, attacks of syncope and disturbances of speech; headache, sleeplessness, loss of weight, and albumen in the urine often accompany.

Carl Beck and Raw have successfully skiagraphed sclerosed arteries, thus invoking and confirming the X-ray as a means of diagnosis.

According to Osler, the palpation of arteries is a fine clini-

cal art and requires experience and education to form a correct judgment on the state of the vessel wall. He says, in connection with the diagnosis of arterio sclerosis, that a perfectly normal arterial tube, when contracted or in a state of very high tension and if very full, may feel cord-like.

Recent German investigations, recording the judgment of palpated arteries by skillful clinicians in living subjects and comparing them with the post mortem findings, show that in a very considerable number of cases of apparently rigid arteries, the histologic picture furnishes no explanation for estimated rigidity. The reverse situation of sclerotic vessels unrecognized by the touch of the trained clinician are also quite frequently revealed. Palpation of arteries alone is, therefore, not always reliable and the associated symptom complex must decide.

According to Anders, to differentiate the murmurs of dilatation of the left ventricle following the hypertrophy of this disease from organic valvular lesions is only possible by the history or the result of treatment. The systolic murmur over the aortic area in atheroma may suggest aortic stenosis. In such cases, however, the second sound is loud and the pulse more voluminous than in aortic constriction.

Of late, the most reliable instrument of diagnostic precision in recognizing arterio sclerosis, all the way from the early premonitory hypertension due to an intoxication of some kind to the later degenerative changes in the arteries and its sequelæ—cardio-vascular-renal disease,—is the sphygmomanometer.

In arterio sclerosis, the mechanical factors affecting blood pressure resemble that of a system of rigid tubes—a high pressure during systole, a low pressure during diastole, so that the pulse pressure is high. Although this is the rule, it occurs only in those individuals whose sclerosis involves the aorta and splanchnic vessels, which however exists in the majority of cases.

The importance of being on the lookout for this stealthy prowler seeking his victim so unawares has been well proven during a recent examination of a group of some thousands of employes by the Life Extension Institute at an average age of thirty years, which showed 13% with arterio sclerosis and more than 50% sufficiently impaired to be sent to their physicians for treatment.

Prognosis.—As an involution process arterio sclerosis is an accompaniment of old age, and is the expression of natural wear and tear to which the tubes are subjected. Longevity is a vascular question and has been well expressed in the axiom that “a man is as old as his arteries.”

To a majority of men death comes primarily or secondarily through this portal. Some persons with well marked sclerotic arteries live to an advanced age and suffer no serious consequence. Others with but slight degeneration and no clinical evidence of the same may through cerebral hemorrhage or other cause progress rapidly to a fatal issue.

Treatment.—The only true and successful treatment is prophylaxis. When once the disease is thoroughly established no cure is possible; relieving symptoms and retarding the otherwise rapid and inevitable culmination of the disease, are the only things left for the physician to do. To insure longevity, it behooves us to educate the rising generation, as to diet, drink, hygiene and general social betterment; teaching them to avoid or correct the principal factors which induce and hasten the development of arterio sclerosis. These are abuse of alcohol and tobacco, as well as tea and coffee, immoderate bodily exertion, mental irritation, constitutional anomalies as obesity, diabetes, gout, syphilis and intoxication, as of lead; over-indulgence at the table, eating poisoned candy, drinking artificially flavored concoctions at the soda fountain, living out of tin cans and on antisepticized food in general.

As the cause of high blood pressure is now generally conceded to be an intestinal toxemia, low proteid diet and stimulation of elimination is indicated. Meat yields tyrosin which undergoes intestinal putrefaction and causes systemic poisoning. Roasted and fried meats are rich in extractives; boiled meats are not. Hence the latter should be ordered by preference.

Milk and milk foods should be taken abundantly and a vegetable and fruit diet should take the place of meat. This will help to correct the constipation so injurious to this ailment. It is a known fact that persons of more advanced age feel well only if their bowels move regularly and complain of discomfort of all kinds if this function is disturbed. It appears that old arterio sclerotic individuals are much more sensitive in this regard than those younger. Hard straining at stool should be avoided. Russian mineral oil, for the relief of constipation,

has lately received the endorsement of a great many leading clinicians. Personally, I have tried it out quite extensively with the most satisfactory results in the majority of cases.

Metchnikoff's lactobacilline theory also deserves consideration.

To avoid rise of blood pressure in advanced cases, exposure to excessive heat or cold should be forbidden; hot or cold baths should not be allowed and hot or cold drinks should be proscribed. But mild hydriotic measures, as washing and rubbing the skin, dilates the cutaneous vascular net and thus reduces blood pressure. General massage often accomplishes similar results. The high frequency current also has its enthusiasts. Plenty of sleep should be taken at night and if possible a regular hour for recumbency and sleep at midday should be insisted on.

Should the contracted kidney be an associated factor in the disease diuretics in small doses, and long continued may be needed, as for instance, diuretin.

Huchard recommends sodium iodid. The daily dose not to exceed 2gm. to be continued for two weeks, then interrupted for some weeks and this repeated several times. On account of its cumulative action, he advises a pause of three days after its administration for four or five days, if signs of iodism appear. He is also an earnest advocate of K. I. even in the non-syphilitic, claiming that it exerts a beneficial influence on the nutrition of the blood vessels.

Mathews has shown that nitroglycerin given three or four times a day does not produce reduction of blood pressure. The effects of two minim doses are lost in twenty-five minutes. Two grain doses of sodium nitrite, he has shown in his experiments, will reduce the arterial pressure 30 mm. for a period of 40 minutes, when it gradually rises to normal in three hours. With potassium nitrite he got more lasting results. Nitrites act on the muscle and nerve of the vessel wall producing vasodilation. Sodium nitrite if kept for some time loses its potency. A fresh product in well corked bottles should only be dispensed.

Pick and Hecht, of Vienna, say that the fall of blood pressure from amyl nitrite, sodium nitrite, and nitroglycerin is very pronounced but also very transient and that in such a chronic disease as arterio sclerosis one could not expect great results from the use of these drugs.

If circulatory disturbances in the brain appear, characterized by vertigo and headache usually localized in the parietal region and occasionally by transient fainting spells and sudden aphasia, absolute rest in bed is demanded, careful cardiac stimulation may be required and the bowels should receive attention.

If there is a gouty or syphilitic history in the case, the proper diet, etc., in the former and anti-syphilitic treatment in the latter should be instituted. Here K. I. is the sheet anchor. It is likewise very efficient in reducing the arterial tension and exerts considerable influence in maintaining renal and general nutrition.

In our school of medicine we depend chiefly on the chloride of gold in doses of five minims three or four times a day of a 1% solution. This drug certainly has a specific therapeutic relationship to the disease as well as interstitial nephritis. All of the special symptoms of the disease are found in its pathogenesis and it has an important action on overgrowth of connective tissue.

The high tension not due to degenerated vessel walls is successfully lowered by the use of a standardized preparation of aconite in divided doses, amounting to 10 or 15 drops a day. It acts on the vaso-motor centers and often relieves when sodium nitrite fails. It is very efficient in relieving the symptoms of cerebral congestion and is one of the best remedies for the associated vertigo.

Mercurius corrosivus is indicated in syphilitic cases and those complicated with nephritis. It is of special value in the later stages and in albuminuric retinitis.

Plumbum metallicum from its known ability to produce the disease has also proven efficient in minute doses in its treatment.

In conclusion, allow me to urge upon this medical fraternity the importance of educating the laity, that early as well as senile arterio sclerosis is recognized as the disease of wear and that it is not only due to the strenuously persistent physical and mental activity but also to the deleterious effects of a poisoned blood stream, rusting and corroding our delicate system of vital plumbing, thus interfering with the healthy functions of the

various organs and sooner or later developing an unexpected but irrevocable shipwreck.

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ANNIHILATION OF THE FAUCIAL TONSIL, "AND WHY."

BY

GEORGE J. ALEXANDER, M.D., PHILADELPHIA.

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THE subject of diseased tonsils should stimulate the keenest interest and broadest liberality in the mind of the general practitioner because his responsibility is great, inasmuch as his knowledge or lack of it will either prevent or allow many of his patients some time in life sooner or later to become victims of one or more of the serious complications secondary to these offending organs. Therefore to fortify himself against such an unhappy state he must know how to recognize a diseased tonsil and be familiar with the proper disposition of it in the way of treatment.

The normal faucial tonsil anatomically, is pink in color, located between the faucial pillars, and should protrude but little beyond these structures. It is composed of lymphoid or adenoid tissue and lies in a bed of areolar tissue. It has a comparatively stout connective tissue capsule over its posterior surface, the capsule anteriorly being practically nothing more than mucous membrane. On the anterior surface are found crypts or lacunae which are infoldings of the mucosa, and extend into the body of the tonsil to varying depths, the walls being studded with lymph nodes, and mouths of the muciparous glands situated in the stroma of the tonsil.

As to the question of function: In my opinion this is not known, as there is not one man to date who has come out and declared that he could demonstrate beyond question the function of this gland. A few of the theories are however,—

1. That they are residual embryonic remains of organs that performed their function during the intrauterine period, discontinuing after the first few years of life which speaks for their rudimentary character. I am personally inclined to this idea for reasons to be discussed later.

2. That they have a particular secretion.

3. That they secrete a mucous which facilitates deglutition by lubricating the bolus of food.

4. Exert a physical action.

5. That they manufacture an internal secretion.

6. That they act as blood forming glands, and,

7. That they form a protection to the organism against the entrance of bacteria, etc.

It is to be remembered that in this paper only the chronically diseased tonsils are under consideration, namely, the large hypertrophied ones and the small flat or non-hypertrophied variety. Clinically we recognize them according to their types, as; (a) The hypertrophied type may be: 1. Projecting. 2. Overhanging. 3. Imbedded or submerged. (b) The small flat tonsil is nearly always submerged, which means that it is confined within the area between the pillars; this type of tonsil is frequently enormously enlarged, its body spreading about under the pillars and may be so deeply situated that it cannot be seen without lifting the anterior pillar back or causing the patient to gag when the tonsil is usually forced well out of its bed into view. The projecting hypertrophied tonsil, due to a long standing passive congestion or repeated acute inflammatory attacks has undergone hypertrophic degeneration with destruction of much of its lymphoid tissue. The external surface is usually regular in outline and the crypts small. In this type of tonsil is found the typical form of acute lacunar and follicular inflammations with the characteristic small sharply outlined islets on its surface.

The small flat submerged tonsil presents quite a different pathological picture. It is either soft, friable and degenerated, hyperplastic or atrophic, or is hard and tough consisting for the most part of connective tissue; the posterior or external capsule cannot be outlined at times on removal because of the numerous fibrous bands that extend from the tonsil to the surrounding parts of its bed. The anterior or inner surface is extremely irregular, usually a large inferior and a small su-

perior lobe with one large central fissure-form crypt or several large open mouthed ones.

This tonsil is constantly in the state of a low grade inflammatory process with periodical acute exacerbations, the crypts being filled with detritus and bacteria, small masses of debris sometimes become dislodged from the crypts and drops into the mouth causing a bad taste and an offensive breath. In this type of tonsil we invariably meet with the lacunar form of inflammation which by coalescence of the patches is suggestive of an ulceration (vincent's angina) or form a membrane that resembles that of diphtheria.

It is in this type of tonsil too, where we find the above mentioned caseous masses in abundance, these being formed by the mucus and altered epithelium undergoing fatty degeneration.

Again as with any type of diseased tonsil large or small, protruding or submerged, the disease process acute or chronic, may be so mild and insidious that the patient does not have any local discomfort. These, by the way, are the dangerous ones for which I most earnestly warn the physician to be on the look out. Such a patient will call his attention to general symptoms or to distress or abnormal feelings in a certain organ or group of organs, all of which is of great importance.

Locally the diseased tonsil exerts its bad influence not entirely but mostly by the process of contiguity of tissue and as a result we have from one to all parts of the upper respiratory tracts involved by an acute or chronic inflammation, for instance, rhinitis, pharyngitis and laryngitis and with the latter a functional paralysis of the vocal cords. Serious involvement of the eustachian tube, middle and inner ear with practically total deafness at times is found. To illustrate, let me briefly mention two recent interesting cases: F. D. M., child, 9 years old sent to me by Dr. C. D. Smedley, of Wayne, Pa., complained of hoarseness for the last three months which is steadily growing worse. His parents were notified by the public school authorities that he must receive attention. An examination revealed two tiny submerged tonsils, a deflected septum, adenoids, red thickened condition of the mucous membrane of the pharynx and fauces; the true vocal cords were thick and red and did not approximate properly due to a functional paralysis.

Case No. 2. Child, 8 years old, sent to me by Dr. Harry Evans, last week, began two weeks ago to show signs of impaired hearing which grew steadily worse until she can now only re-

peat faultily words spoken into the speaking tube and can barely hear the several tuning forks when vibrating at their maximum. She also gave a history of repeated attacks of tonsillitis. Examination showed two large submerged diseased tonsils, many of their crypts loaded with caseous material; granular pharyngitis, adenoids and hyperplasia of both inferior turbinates.

The distant affections are brought about by endogenous intoxication and by infectious material entering the system either through or from the tonsil. A better idea can be formed of the importance of the tonsil as the factor in focal infection when I tell you it is the source more frequently than all the other organs of the body combined and more than twice as frequent as any other part, as a result then of the two means of infection from the same source we have a long list of affections among which are general ill health, loss of weight, languor, anemia, adenopathy with fever, endocarditis, nephritis, tuberculosis, rheumatism or goiter, appendicitis, nervous disorders, stomach trouble, etc.

Case 3. Female, age 28, also sent me by Dr. Smedley recently, will illustrate very nicely a few general conditions involving the stomach, nervous system and the intestines. Eight years ago she had the last of four yearly attacks of periton-silar abscess, this one being followed by appendicitis. During the last seven weeks she has been extremely nervous and has had indigestion with loss of appetite and weight. Examination showed two diminutive flat tonsils containing large crypts filled with caseous material; these masses getting into her mouth, causing her to have a bad breath which annoyed her a great deal. She also had pharyngitis, adenoids and a spur on the septum. Removal of the tonsils and adenoids is expected to be followed by general improvement in her health.

Having studied thus far with me the condition of the tonsil in its diseased state and the nature of its effects upon other parts of the body, I am sure we can all see the absurdity in attacking it with a mouth wash, styptics, antiseptics, cauteries, oil sprays, etc., and likewise in trying to control the distant maladies with internal medication, leaving the cause intact.

Are we to make an exception in this particular instance and leave infected diseased tissue *in situ* merely giving it a bath at stated intervals when in other parts of the body the same tissue would be removed? No! Surgical procedures of a radical na-

ture are likewise indicated here, the entire gland being removed by the method of tonsilectomy, the advent of which has been a revelation in its successful results, having forced its importance and necessity upon us and may be compared in significance with the comparatively new operation, namely, the Killian submucous resection of the septum which has revolutionized intra-nasal surgery.

I do not want to go on record as saying that the tonsils should be removed for every inflammatory process, auto-intoxication or obscure malady to which the body is heir; but I do say that they should be carefully considered in every instance and if found to be in a condition to cause offense one of the first procedures should be their elimination by the radical surgical route, for of course, no one in this day will tolerate the tonsilotomy or clipping off of the free surface of the tonsil.

The question is frequently asked me by physicians, "How young can one safely remove the tonsils of a child without bad results, systemic or otherwise, principally though, from the sacrifice of their function?" My answer is, Most any time one finds them diseased and especially if they are enlarged and interfering with respiration and deglutition for should a function exist during extra-uterine life it would be lost to the gland in a diseased state for once diseased always diseased, in most instances; hence I have removed the tonsils of children under two years of age with good results.

In infants or very young children it is rare to find frank attacks of acute tonsillitis, but together with the most common condition, hypertrophied tonsils, we have the small cryptic ones, the crypts of which are filled with characteristic degenerated masses showing that the chronic state begins at a very early age and without acute onset.

Those who oppose the surgical disposal of diseased tonsils do so in their ignorance. Their excuses are quite numerous and just about as groundless and absurd. Some of them are as follows:

1. The tonsils undergo natural shrinking and disappear at puberty.
2. They act as a defence to the body against infection.
3. They must have a function that should not be sacrificed or they would not be there.
4. Removal may stop growth.
5. Removal may cause sterility.

6. The tonsils may grow again.
7. Removal may alter the voice.
8. The great danger of hemorrhage, etc.

1. Involution or shrinking. Certainly this takes place in the perfectly healthy and normal tonsil which has partially disappeared at about the age of puberty. This is indeed the exception for most tonsils are diseased even in the shrunken state having contracted their pathological condition during the process of involution or atrophy often giving rise to much ill health and exposing the patient to many ills the effects of which have life long results.

2. Defence against infection. In the first place, how can a tonsil which has undergone degeneration, its crypts filled with septic, bacteria-laden material act as a protection? More natural is it to expect that under such conditions it forms all the more desirable culture medium for organisms to which mouth breathing exposes them. Secondly, How can infectious material, organisms, etc., gain entrance to the body after the carrier (the tonsil) is removed; and through the smooth tougher scar tissue left in the site previously occupied by the tonsil? There seems to be no reasonable negative answer to cover these facts.

3. Loss of Function. A degenerated tonsil has no function but a bad one although it did possess a good one in health so there is all to be gained in this instance.

4. Interference with Growth. This idea is entirely without foundation and probably originated with the period, when the presence and failure to remove the adenoids was not recognized.

5. Sterility deserves no consideration at all in association with removal of the tonsils.

6. Recurrence of an operated tonsil does not take place even when done by the method of tonsilotomy, though hypertrophy of the stumps may take place. Even this is impossible in the thoroughly removed gland by the means of tonsilectomy. A rapid hypertrophy of the areolar tissue of the tonsil bed sometimes takes place after this operation and may become as large or larger than the removed tonsils and may be mistaken for same.

7. Alteration of the Voice. The voice is positively improved by the removal of the tonsils, particularly in singers, where the quality of the tone is enriched and sweetened. Temporarily the voice is impaired while the parts are sore and stiff but soon

become flexible and adjusted to the new conditions. This is more constant and more rapid in children than in adults, because the former are more natural and less apt to put on airs, the sensibility of their nervous system is less highly developed and do not have the psychological difficulties, etc., that are more or less common to the average adult patient.

8. There is always some danger where there is hemorrhage, but this can be nicely controlled in tonsilectomy by various and mostly simple means. Practically the only things that cause serious or fatal trouble are anomalous arteries or veins and hemophilia.

There are numerous reasons for the removal of tonsils not touched upon in this paper because of the limitation of time, but enough has been said to show the stand that should be taken in this subject by everyone. Indeed, the position taken a week ago by a Philadelphia Medical Society at the instance of their essayist, Dr. Giles, who called for an "Indictment of the Tonsils," showed the trend of the mind upon this subject when they, the Society, started a movement toward the formation of a law to compel obstinate parents to give surgeons the right to remove diseased tonsils for the benefit of the helpless child. This move is not at all absurd and will also receive the support of the writer.

So I say, the "Indictment" should be followed by a verdict for "annihilation" so that we may go on and annihilate these trouble-making diseased tonsils with knives, guillotines, snares, etc., by so doing send more of their victims on their way rejoicing at the elimination of the cause and their maladies preparing them to be better fitted for carrying out the functions of their various lives.

LABORATORY DIAGNOSIS BY CEREBRO-SPINAL FLUID EXAMINATION.

BY

S. R. KLEIN, M.D., NORWICH, CONN.

THE recent epidemic of poliomyelitis in New York City and the States of New York, New Jersey, Connecticut and Pennsylvania, gives us an idea how important it was and is at all times to know the contents of spinal fluid for special and differential diagnosis in spinal, cerebral and cerebellar infections, granulations, degenerations, etc. I am trying to give you a short description of recent work done in that line.

In tuberculous meningitis, the irritation and pressure of the spinal fluid is always considerably increased, often 50 m.m. and beyond. It has an abundance of lymphocytes and polynuclear leucocytes, the former often vastly preponderating—the latter increased in mixed infections. Albumin always increased, average about 0.2%. In state of paralysis average about 0.4%. Sugar tests nearly always negative, even after previous elimination of albumin. In thirty to fifty per cent. of the cases tubercle bacilli are demonstrable, consequently coagulation of clear fluid, lymphocytosis, excessive pressure and tubercle bacilli are the special characteristic findings.

In cerebro-spinal meningitis the pressure of spinal fluid is not exceeding fifty m.m.; always turbid, sometimes tinged with blood; also characteristic the sedimentation of pus, frequently formation of fibrin nets, polynuclear cells predominating, lymphocytes in the stage of advanced healing, possibly coxycytes. Albuminous contents varying, usually considerably increased. The bacterial contents of the fluid are intracellular diplococci, the meningococcus of Weschelbaum and kindred types.

In suppurative meningitis, the pressure of the fluid is in the beginning, and at the climax usually increased up to about 40 m.m., never excessive, usually of considerable grayish white or grayish yellow turbidity, sedimentation of creamy pus takes place and polynuclear cells are predominating. Albumin very considerably increased up to one per cent., but the sugar test is nearly always negative even after previous elimination of albumin.

Among bacteria we always find pneumococci, staphylococci and streptococci, typhoid, influenza and colon bacilli.

In any other pathological conditions like poliomyelitis, syphilitic meningitis, whooping cough, etc., lymphocytosis takes place; albumin not higher than 0.5%, sugar absent. Among bacteria mostly staphylococci are found. The puncture is often bloody, the pressure varying. Normal or low pressure with good cardiac function excludes exudative affections.

I had opportunity during five weeks to work on poliomyelitis cases in the Willard Parker Hospital, New York City, and found that the spinal fluid was always a remarkable medium, interesting but not definitely establishing the diagnosis. Many cases probably were doubtful or not of the infantile paralysis type at all and for that reason cured.

EDITORIAL

SECTARIANISM IN THE DOMINANT SCHOOL OF MEDICINE.

It has been the fashion for many years past for the critics of the homœopathic school of medicine to hold up the charge of *sectarianism* as one of the most important counts against the homœopathic profession. We have always contended in these columns that the so-called "regular" or dominant school of medicine was more deserving of the term "sectarian" than the homœopathic school, for the simple reason that their range of medical therapeutics was much more limited. It is true that this limitation is voluntary, as there is no legal reason why members of the dominant school should be prevented from employing with advantage that important portion of drug therapeutics that is included under the homœopathic system; but the mere fact that their restrictions are imposed upon them by their own volition is certainly to their discredit.

While we have always felt that this view of the matter must be evident to any unprejudiced mind, we confess that it was with somewhat of a surprise that we read in the *Evening Bulletin* of September 19th that as prominent a man as Dr. Charles A. E. Codman, President of the Pennsylvania State Medical Society, in an address before the sixty-sixth annual session of the Pennsylvania State Medical Society at Scranton, frankly acknowledged the sectarian character of that organization and to it he attributed much of the failure of the Society to accomplish important work. As quoted in the *Bulletin*, Dr. Codman says, "The woeful lack of influence of the Pennsylvania State Medical Society in the last session of the Legislature terminated in the passage of the Workmen's Compensation Law without so much as the slightest recognition of the physician. The reason for this lack of power has been attributed to various sources; however, *the consensus of opinion seems to favor the idea that we have been working as a sectarian medical body*,"* and not representing the entire profession. To remedy this, I urge that our committees on Public Policy and Legislation meet with the Homœopathic and Eclectic Medical

(*Italics ours—Ed.)

Societies. We need also a closer co-operation with the State Department of Health and the Bureau of Medical Examination and Licensure."

We consider it a favorable sign that recognized leaders in the dominant school are beginning to see the light. The old-time policy of persecution of members of the homœopathic profession was a failure, and the more modern policy of "loving us to death" and "sniping" off an individual homœopathic practitioner here and there, has met with exceedingly poor results. In fact, it is questionable whether the few individual homœopaths that have been corralled into the Old School organizations by methods that have, in many instances, been totally at variance with the best traditions of the profession, are sufficient compensation for the sacrifice in professional traditions and in personal self-respect that has been necessary to secure them. It has always been our contention that the only fair and proper means of bringing about co-operation between the two Schools is through the medium of representative committees and that the homœopathic physicians as individuals, should refuse to enter into any alliance with Old School organizations until a fair and frank recognition of the place of homœopathy and of homœopathic practitioners as scientific medical men, shall have been made.

It is evident that Dr. Codman accepts the view of conferring officially with homœopathic organizations, and we believe that if the Pennsylvania State Medical Society is wise enough to accept his ideas, that much good could be accomplished for the benefit of both schools of medicine and for the public in general. His attitude also emphasizes the fact that the co-operation of the homœopathic profession is *absolutely essential* for the progress of the medical profession in general, and that if homœopathic physicians will maintain the integrity of their organizations, scientific and political reasons alike, will, in the near future compel the organizations of the dominant school to give homœopathy and practitioners of homœopathy the recognition that their standing deserves. G. H. W.

HAHNEMANN COLLEGE.*

HAHNEMANN is booming! Why don't we say Old Hahnemann? Because we feel more like saying New Hahnemann. We know she has a past, an old past to be proud of, but to us she is *new*. New to grasp every opportunity which will make her a greater and better teaching institution; new, to be the first in everything that pertains to the science of medicine.

We have forty (40) students in the Senior Class; ten (10) in the Junior Class; thirty-three (33) in the Sophomore Class; thirty-one (31) in the Freshman Class; and fifty-five (55) in the Pre-medical Class; making a total of one hundred and sixty-nine (169) enrolled—and they're all first-class material, too.

In a very few years at least, our most live Dean and his untiring assistant will have accomplished their aim, so far as students are concerned, namely, that there be fifty students enrolled in each class.

As to the course of instruction and clinical experience given by Hahnemann to its students, it certainly cannot have a peer in the whole country, and yet the departments are constantly being improved in order to allow the student an opportunity to do more efficient work.

During the past summer the entire college building has been redecorated; new office rooms for the Dean and his assistant have been fitted out, new decorations and pictures added to the college, of which the most magnificent is a wonderful portrait of Dr. Wm. B. Van Lennep, Professor of Surgery, painted by Rittenberg.

Through the generosity of Mr. Walter E. Hering, one of the most important additions to the college during the past year has been the equipment of a laboratory of research on the fourth floor of the college building, to be used exclusively by members of the Faculty.

Dr. John G. Wurtz will do the pathological work in connection with the changes caused by the physiological action of drugs, while Dr. S. W. Sappington, Professor of Pathology,

*This article was prepared by Thos. B. Mills, Hahnemann, '17, for the "Students' Notes." It contains so much of interest to the profession that it seemed wise to insert it in a more prominent part of THE HAHNEMANNIAN.—Ed.

will start a special piece of research work on November 6th.

New books have been added to our library, and at the present time the Library Committee is raising an endowment of \$1,000, to be known as the Thomas L. Bradford Library Endowment, the income from which shall be used for the library exclusively.

The college has not only improved its building and equipment, but has also secured and added to its teaching corps the services of several splendid men.

Dr. Frank H. Greffin has been elected Demonstrator of Chemistry; Dr. Greffin is a graduate of Swarthmore College, with one year of post-graduate work with Dr. Alexander Smith, author of the text-book used here. Dr. Greffin is also Professor of Chemistry in the Friends' Select School of this city.

J. G. Lane, D.D.S., has been elected Clinical Professor of Orthodontia. Dr. Lane is one of the foremost orthodontists in the country, and his election will insure Hahnemann of being in the first rank in this comparatively new subject.

Dr. Wm. B. Griggs has been elected Associate Professor of Therapeutics, to take the place of the late Dr. Wm. H. Yeager.

TREATMENT OF ACUTE POLIOMYELITIS BY INTRASPINAL INJECTIONS OF ADRENALINE CHLORIDE.—P. M. Lewis (*Medical Record*, September 23, 1916) reports seventy-seven cases treated at the New York Nose, Throat, and Lung Hospital with adrenaline. There were eighteen deaths, of which only five, or 6.9 per cent., were due to straight poliomyelitis under the adrenaline treatment. The treatment was as follows: The bottle of one in 1,000 solution was placed in a bath of boiling water to drive off the .5 per cent. chloretone content, and the solution was used undiluted after cooling. The child's body was flexed over a six inch glass bottle to increase the interspinous spaces, the skin was painted with tincture of iodine before, and dressed with moist boric acid dressings after the injections. A medium sized aspirating needle was found to be the best and the punctures best made between the fourth and fifth lumbar vertebrae. Intraspinous pressure was relieved and two c. c. of the one in 1,000 solution of adrenaline was injected, repeated every six hours day and night until the temperature was normal, unless kept up by some cause other than the poliomyelitis. No local anesthetic was found to be necessary. Hexamethylenamine was given in moderate doses during the acute stage and any tendency to deformity was the signal for putting the affected limb in plaster of Paris.

GLEANINGS

EFFECT OF POTASSIUM IODIDE ON THE LUTIN REACTION.—John A. Kolmer, Toitsu Matsunami, and Stuart Broadwell (*Jour. A. M. A.*, Sept. 2, 1916) note that Sherrick's observation that a positive luetin reaction occurred in ninety-nine per cent. of all persons, even if nonsyphilitic, if potassium iodide was administered shortly before, during, or immediately following the test, was confirmed in a series of careful investigations on normal subjects. Adequate "controls" were carried out, using the same material and the same subjects. The reaction was found to be positive in some persons as long as a month after the last dose of the iodide. Similar results were secured in guineapigs and rabbits. A marked reaction was also observed when agaragar was substituted for the luetin in iodized persons. Inflammatory reactions also developed at the site of previously negative luetin injections when potassium iodide was given subsequently. The dose of iodide required to cause positive reaction differed in the different subjects. These findings showed the necessity of care in interpreting the luetin reaction and the need of certainly excluding recent administration of iodide when the test is made.

APPENDICITIS AS A SEQUEL OF TONSILITIS.—The occurrence of appendicitis as a sequel of tonsilitis has not received much attention and is unmentioned in most textbooks. The importance of the tonsil as the port of entry of many infections and a source of disease in distant organs has been established in recent years. General septicæmia, acute rheumatism, chorea, endocarditis, pneumonia, pleurisy, meningitis, nephritis, orchitis, thyroiditis, and cholecystitis have been traced to tonsillar infection. The similarity of lymphatic structure in the tonsil and the appendix suggests liability to similar infections. Professor H. D. Anderson, of Toronto, has published in the *American Journal of Medical Sciences* an important paper on appendicitis as a sequel of tonsilitis. His attention to the subject was first directed by the case of a student, aged 19 years, who became ill with follicular tonsilitis on January 10, 1907. A culture from the throat showed the staphylococcus pyogenes aureus. On the 13th the throat had greatly improved, but the patient suffered from epigastric pain, gastric distension, and belching of gas. There was some tenderness in the epigastric and left hypochondriac regions. The bowels had been acting freely. The pain disappeared in a short time and for two days the patient appeared to be much better, the throat cleared up, and the temperature became normal. On the 15th the pain and gastric distension with retching occurred and he was admitted to hospital. The epigastric region was distended, but there was no pain, tenderness, or rigidity elsewhere. During the night general abdominal pain, tenderness and distension developed, and the temperature rose to 92.2 deg. F., and the pulse to 140. An opera-

tion was performed and general peritonitis and a gangrenous appendix were found. He died next day. Other observers have reported cases in which the tonsillitis preceded the appendicitis by only a few hours, and it has been noted that rheumatism may develop coincidentally with or follow appendicitis. In the preceding case the remarkable feature was the latency of the symptoms referable to the appendix. Fever and rise of pulse rate were absent until the sudden development of the fulminating symptoms. The epigastric pain and tenderness seemed to be due to gastric distensions. It is possible that they were due to generalisation of the infection from the tonsil with secondary involvement of the appendix. In the *Journal of Infectious Diseases* for March, 1915, E. C. Rosenow has published an article on "The Bacteriology of Appendicitis and Its Production by Intravenous Injections of Streptococci and Colon Bacilli." He has shown that multiple hæmatogenous infection of the appendix, duodenum, small intestine, and stomach may result. In 1893 Dr. T. N. Kelynack, in his book on "The Pathology of the Vermiform Appendix," directed attention to the relation of tonsillitis to appendicitis. Subsequently the subject was taken up by German investigators. In 1901 Adrian produced appendicitis in rabbits by intravenous injection of bacteria. He regarded the appendix as a point of election for the localisation of infections. In *The Lancet* Dr. F. J. Poynton and Dr. A. Paine have published important contributions to the subject. They showed that in rabbits the micrococcus, which they regard as the exciting cause of acute rheumatism, can produce a local lesion in the appendix by direct blood infection. They subsequently reported a case which "seems to prove almost conclusively that appendicitis may be a streptococcal invasion through the blood-stream from a follicular tonsillitis.—*Exchange*."

THE PREVENTIVE TREATMENT OF CATARRHAL DEAFNESS.—Yearsley in the *Practitioner* for June, 1915, says the general line of treatment which seems to be adopted when a patient presents himself with early middle-ear catarrh is to have recourse at once to inflation by catheter or Politzer bag, and, so far as the nose is concerned, to be content with prescribing a nasal douche, a spray, or a snuff, with, perhaps, the addition of an occasional application of the galvanocautery to the turbinates. If the case is in an early stage, or has not yet progressed very far, the result is good. It is, however, good only for a time; relapse comes presently, and more inflation, more nasal douching, more cautery are tried, probably with less success. Relapse occurs in nine cases out of ten, for the cause has not been treated adequately. Often then only is serious correction of nasal abnormality attempted—when it is too late. Perhaps more enterprise is shown by direct local treatment of the nasopharynx, but unless the cause of the nasopharyngeal condition is carefully sought out and treated, ultimate failure is inevitable.

The proper course to pursue in dealing with these cases is: first, to make a complete physical and functional examination of the ear, so that its exact condition as regards tympanum, Eustachian tube, and hearing is recognized; secondly, to examine the nasopharynx and nasal cavities to ascertain their condition and causative relation to the affected ear or ears; and thirdly, to adapt treatment judiciously to the individual case,

always bearing in mind that the removal of the cause is of paramount importance. A few words upon each of these three heads are necessary.

In examining the ear, the condition of the membrana tympani and of the Eustachian tube must be ascertained, but the results of functional testing by whispered and spoken speech and by tuning-forks are of equal if not of greater importance. Speech is the most useful test, not only from the point of view of prognosis, but for ascertaining the progress of the case during treatment. The writer's own experience goes to show that, so long as any whisper-hearing remains, the prognosis is encouraging, being better in direct proportion to the amount retained.

The second point concerns the examination of the nose and nasopharynx. The former should be inspected by anterior rhinoscopy, both without and with the use of cocaine and adrenalin. In no case should the routine examination of the nasal cavities under cocaine be omitted. It is sufficient gently to pass a wool-armed probe, dipped in a solution of equal parts of 10 per-cent cocaine and 1-in-1000 adrenalin, over the mucous membrane of the anterior half of each nasal chamber. This is more efficient and less haphazard than the use of the spray. By this means sufficient ischemia, without inconvenience to the patient, is obtained to insure a full inspection of any abnormality of the septum present, and by it alone can the existence of a posterior bony spur be detected in many cases.

The nasopharynx can be examined by means of the posterior rhinoscopic mirror or by an electric nasopharyngoscope. It is better to use the former instrument before the nose is placed under cocaine, for the condition of the posterior ends of the inferior turbinates and of the Eustachian cushions can better be ascertained. For the electric nasopharyngoscope, it is usually necessary to cocaineize the lower part of the septum. The instrument the writer prefers to employ is that of Holmes, which is passed like a Eustachian catheter and can be used from one side. This reveals well the condition of the postnasal space, and by its means adhesions or growths in the ostium of the tube can be accurately observed.

Having ascertained with as much detail as possible the exact condition of the patient, including his general state of health, and especially that of his digestive and circulatory organs, then and then only can the question of treatment be considered. When the case is in an early stage and the prognosis is favorable, there can be no other course open than to remove the cause. There can and must be no half measures. When a well-marked spur or deflection is present, the use of nasal douching, sprays, snuffs, or the application of the cautery to the turbinates is merely playing with the case, and will lead eventually to disaster.—*Therap. Gazette.*

THE TRANSPLANTATION OF FREE FLAPS OF FAT.—A. B. Kanavel.—A Report of the Results Obtained in Attempts to Prevent Adhesions about Tendons, Nerves, Blood-vessels and Joints, to Favor Repair, and to Lessen Deformity.—*Surg. Gynec. and Obst.*, xxiii, 163, 1916.—In most cases the fat was taken from the abdominal wall, although in some very obese subjects, the transplant was taken from the fascia lata of the leg.

The thickness varied from one-fourth of an inch to one inch. If

possible no sutures were taken. Care was taken to prevent the formation of a hematoma.

The classes of cases reported were as follows:—

(1) Transplantation of Fat into Cicatrices to soften them, restore mobility, and repair deformity.

Four cases are reported. Three of these were for the relief of contracted scars about the face. One was on the buttock. Two cases the result was good, one was poor and one was somewhat relieved. In one of the cases, the poor result is attributed to the fact that the scar became infected together with the transplant resulting in absorption of the latter. In one of the successful cases the transplant remained practically whole after a period of two years.

(2) Transplantation of fat about vessels to prevent oedema from cicatricial contraction.

Four cases are in this group. Three of the cases were performed after the removal of the breast for carcinoma. Two of these became infected. The fat was extruded with the insuing discharge. In one case the result was good. The fat remained intact after two years, and no oedema resulted. He believes in this class of cases especial care as to asepsis should be taken. Also that the transplants should be smaller and thinner.

(3) Transplants about nerves to prevent scar-tissue contraction and favor repair.

(4) Transplantation of free flaps of fat about cut tendons after suture. There was a good result in both cases of this class.

(5) Transplantation of free flaps of fat into joints.

There were two classes of cases of this kind. One tuberculosis of the joint and second ankylosis following infection.

The first class demonstrated the fact that fat can be transplanted in this class and not be lost in masse.

(6) Transplantation of fat into brain defects.

Two cases of this class. The fat was one inch in thickness and two inches square. The cases were of traumatic epilepsy. Neither were satisfactory.

(7) Transplantation into defects of bone.

Three class of cases. Tuberculous, non tuberculous osteo-myelitis and ostitis fibrosa cystica. The first two apparently accomplished no improvement. The third was a good result.

(8) Transplantations into contractures of the hand following infections.

The author's conclusions are as follows:—

That fat can be transplanted into an ordinary field and will not act as a foreign body. That in some cases it appears to live and become a part of the structure and persists for months and even years. That the fat should not be packed in too tightly. That the field of greatest value is in plastic operations to restore mobility and remove disfigurement and as a protection about nerves, vessels and tendons.

J. G. SPACKMAN.

THE INDICATIONS FOR AND RESULTS OF CEREBRAL AND CEREBELLAR DECOMPRESSION IN ACUTE AND CHRONIC BRAIN DISEASE.—*C. A. Elsberg, Surg., Gynec. and Obst.* 1916, xxiii, 153.—The author reviews the effects of increased intra-cranial pressure, producing distortion of the brain according to the location of the pressure. That in supra-tentorial growths the brain is pushed away from the median line. If the local increase of pressure is beneath the tentorium the brain is pushed upwards. Any of these distortions which prevent a free flow of cerebrospinal fluid from the ventricles through the aqueduct of Sylvius will also cause an increase of the intra-cranial pressure.

He points out that the symptoms of the increased pressure are both local and general and are in relationship to the area involved and its location.

The means at our disposal for the relief of this increased tension are the decompressive operation, puncture of the ventricles and corpus callosum.

Statistics have shown that 75 per cent. of all brain tumors are accompanied by an internal hydrocephalus which may be relieved by the repeated withdrawal of 20-50 centimeters of fluid. In irremovable and unlocalized growths except in the posterior cranial fossa, puncture of the corpus callosum may give relief.

Autopsies have shown that in cases where there was a subtemporal decompression done on one side for the relief of a supra tentorial irremovable tumor that the effect was to produce a much distorted lateral ventricle on the side of the operation. Thus causing pressure by this distorted, enlarged lateral ventricle upon important nerve tracts. He believes that in cases of this kind that the operation of choice is a bi-lateral decompression.

He believes that we should not wait until the papilloedema is marked and loss of vision has taken place.

The indications for operation in cases of fractured skull should depend on the condition of the individual case and whether the symptoms are stationary or advancing. In cases of basilar fracture with a large haemorrhage, some good results have followed a bilateral decompression, retracting upwards the temporal lobes and washing out the blood clots by a through and through irrigation.

That the post-operative results of patients operated upon for a fractured skull are often poor. Epilepsy, post-operative neuroses, a feeling of uncertainty and inability to perform their usual line of occupation.

He strongly believes that conservatism should be the key-note of surgical treatment. That there should be definite signs of brain lesions or increased intra-cranial pressure present before operation should be done. In the above class all cases of gross lesions as large depressed fragments of bone are of course excluded.

J. G. SPACKMAN.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY DR. DONALD MACFARLAN
PHILADELPHIA

THE PAROXYSM IN ASTHMATIC DISEASE.—There is probably nothing more alarming, with few exceptions than a fulminating attack of acute asthma or what may be incorrectly termed an attack of such a nature. At the last meeting of the American Institute a well-known practitioner was unfortunately seized with a very alarming "asthmatic spell" after partaking of some food which had evidently proven anaphylactic in his case. *Nux vomica* (low), *lachesis* (high), and *cuprum arsenicosum* (high) had been used with results not pleasing to the gasping doctor and it was remarkable how one dose of the *nux vomica* (high) in the midst of the seizure worked in this particular case. Dr. John H. Clarke, of London, has made the following recommendations which should certainly suit the vast majority of these agonizing seizures which may oft-times be illy diagnosed by the best of clinicians.

Recent and uncomplicated—*hydrocyanic acid* 3x every quarter hour. Pure spasmodic asthma, spasm very prominent all over body, vomiting after the attack—*cuprum metallicum* 6x every quarter hour.

Attack occurring early in the morning: frequently induced by disorders of stomach—*nux vomica* 3x every quarter hour.

Occurring periodically at midnight or 2 A. M. *arsenicum album* 3x every quarter hour.

Convulsive breathing, nausea or vomiting, cold sweat on the face—*veratrum viride* 3x every quarter hour.

Nausea and great depression of heart—*lobelia inflata* 3rd potency gtt. j every fifteen minutes.

When the asthma is not pure, but associated with catarrh and cough, if the mucus is scanty—*ipecacuanha* 3x every quarter hour. If the mucus is profuse—*antimonium tartaricum* 6x every fifteen minutes.

CLINICAL CASES. ILLUSTRATING THE USE OF THE REPERTORY.—Case (1). Mrs. S. Severe cough and involuntary discharge of urine with each cough. Had cough mixtures and old-school treatment without avail. After giving her *nux vomica* and *bryonia* to antidote the effects of the drugs taken, I obtained the following symptoms, the most characteristic being listed as No. 1.

1. Cough only during the day, not at all at night.
2. Sputum profuse, thick mucous.
3. Worse lying down.
4. Worse on entering a warm room.

5. Worse talking.
6. Worse laughing.
7. Involuntary discharge of urine with each cough.

Symptom number 1 is characteristic of the following: ammonium carbonicum, dulcamara, euphrasia, ferrum, lachesis, mercurius vivus, nitric acid, phosphorus, rumex, sepia and thuja. When any of the foregoing drugs is mentioned, the number of the symptom is entered against the name of the drug in the list as follows:

Ammonium carbonicum.

Drosera. 3, 4, and 6.

Euphrasia.

Ferrum. 3 and 5.

Lachesis. 2, 3, 5, 6, and 7.

Mercurius vivus. 2 and 5.

Nitric acid. 3, 5, 6, and 7.

Phosphorus. 2, 3, 5, 6 and 7.

Rumex. 3, 5, and 7.

Sepia. 2, 3, 4, and 7.

Thuja.

The remedy covering the most symptoms of the patient is the similimum. Dulcamara, the only remedy, having all the symptoms was given, a cure was effected.

F. H. LUTZE.

Case (4). Mr. H., aet. 73 years, after exposure to cold rain and sleet, had a severe chill, followed by fever. I was called soon after and gave aconite 3rd. in aqua. He seemed to improve somewhat, but soon pneumonia developed. I gave him bryonia and other remedies. Seeing no improvement and finally fearing my patient would not recover, I called in an old, experienced homoeopath in consultation. He examined the patient, questioned him and also the family and elicited the following symptoms where I had failed to get any to aid me in the selection of the remedy, homoeopathy being something new to the family as well as to myself, this being in the first year of my practice.

1. Breathing labored, arrhythmical, like the action of a bellows.
2. Face dusky red.
3. Heart's action too regular, without the proper rhythm, like the breathing.
4. Cough worse in the afternoon and from cold air.
5. Sputum, bloody mucus, profuse.
6. Worse lying on the left side.

The doctor advised me to give the patient phosphorus 200, saying that the suffused, dusky redness of the face and the peculiar breathing of the patient had called this remedy to his mind on first seeing the patient, as these were characteristic symptoms of that remedy. I now gave the patient phosphorus 200 in aqua, two teaspoonfuls every two to three hours. In less than twelve hours there was a marked improvement in the patient's condition and he recovered fully under this remedy in a few days, no other being needed.

F. H. LUTZE.

Case (3). Miss H., age 18 years, had been under treatment for over

two weeks, getting steadily worse. Temperature $103\frac{1}{2}$; pulse 120; respiration 45. Tongue brown and dry; breathing, difficult, labored, with fan-like motion of the alae nasi; could not lie on the right and painful side. The abdomen and right side were very tender to touch; cough short, hacking, worse from the least motion; expectoration of frothy mucus with bright red, arterial blood, skin dry and hot; restlessness, delirium.

1. Fan-like motion of the alae nasi.
2. Tongue brown.
3. Cough worse from motion.
4. Sputum, bloody mucus.
5. Breathing difficult.
6. Abdomen tender to touch.
7. Skin dry and hot.
8. Worse lying on right side.
9. Worse lying on painful side.
10. Worse from touch.

Proceeding as before, (by considering the remedies having many of the indications) the result is:

Symptom number 1.

Antimonium tartaricum. 2, 4, 8 and 10.

Arsenicum album. 4, 8, 9 and 10.

Bromium. 3, 4, and 10.

Lycopodium. 2, 3, 4, 5, 6, 7, 8, 9, 10.

Phosphorus, 4, 5, 7, 9, 10.

In this last case lycopodium has the most symptoms: it was given in the 200th potency in aqua and cured the patient completely in five days.

F. H. LUTZE.

CHOLERA ASIATICA. PREVENTION.—Wear next the skin a plate of copper (6 inches by 4, for a man of large size; 5 inches by 3 for a small man, and for a woman; 4 inches by 2 for children). Let it be fastened round the waist by straps attached to longitudinal slits cut in the ends of the plate, which should be oval. Let the plate rest on the front of the abdominal wall, and let it be made slightly concave, so as to adapt itself to the shape of the body. The plate should be worn day and night. It may be cleansed from time to time by rubbing with vinegar.

In addition to this, if the person to be protected is much exposed to the disease, *one drop of cuprum aceticum* 3x should be given in a little water night and morning.

PRELIMINARY SYMPTOMS.

In cholera times, whenever diarrhea occurs, give Rubini's *tincture of camphor*, five drops on a lump of sugar, every fifteen minutes to every hour, according to the urgency of the symptoms, until the diarrhea is completely removed.

Should an attack come on without premonitory diarrhea, sudden coldness and lividity seizing the patient, give Rubini's *camphor*, five drops every ten minutes. This may be given if there is diarrhea at the same time, provided it is not excessive.

The patient should now be kept at rest, and as warm as possible, hot flannels being applied to the abdomen, and hot bottles to the feet. No solid food whatever should be given: water may be taken *ad libitum*; and small pieces of ice may be given to suck. Milk is the best food, if it is tolerated. Movement is to be avoided. It is better to treat patients at their own homes, if at all possible, as the very fact of moving a patient into a hospital may make the difference between death and recovery.

If under camphor reaction does not come on, but, on the contrary, the patient becomes worse, vomiting and purging setting in with violent pains in the body, cold sweat on the forehead, give *veratrum album* 1, gtt. 1, 10 m. If the patient complains much of cramps with the vomiting and purging, *cuprum aceticum* 3x, gtt. 1, 10 m. If the collapse deepens in spite of treatment, and the patient is in danger more from general depression than the discharges, *arsenicum album* 3x gtt. 1 every ten minutes.

JNO. H. CLARKE, M.D., LONDON.

CORRESPONDENCE OF WASHINGTON IRVING.—The following extract from a letter of the first great name in American letters may be of interest.

Sunnyside, February 21st, 1854.

My Dear Mrs. Kennedy:—

I met Mr. Meredith in town on Saturday last, and he told me that Kennedy had been unwell. If it is that affection of the head of which he complained last year, tell him I have found, in my own case, great relief from homœopathy, to which I had recourse almost accidentally, for I am rather slow at adopting new theories. I can now apply myself to literary occupation day after day for several hours at a time, without any recurrence of the symptoms that troubled me.

It would be of interest to know more concerning this. William Cullen Bryant was a friend of Irving's and his initiation into the Hahnemannian practice may have come from that quarter.

ELAPS CORALLINUS.—Elaps corallinus and its value in throat affections was well gone over at Baltimore recently by Dr. Rudolph F. Rabe. This was a remedy proven by Dr. Mure and included in his Brazilian pathogeneses. Dr. Rabe considers elaps to be of value to the ear, nose and throat specialist and the indications verified by him in his medical work are offensive, yellowish green discharge from the ear with impairment of hearing and tinnitus. The throat symptoms are the presence of thick, very offensive, dry, greenish-yellow crusts upon the posterior pharyngeal wall and extremely foul breath.

RUDOLPH F. RABE.

THE HAHNEMANNIAN MONTHLY.

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Transactions of the Homoeopathic Medical Society
of the State of Pennsylvania.

FIFTY-THIRD ANNUAL SESSION

A SUBJECTIVE PROVING OF GLYCERIN.

BY

WILLIAM B. GRIGGS, M.D.

(Director of the Constantine Hering Laboratory, Philadelphia, Pa.)

GLYCERIN is a liquid obtained by the decomposition of vegetable or animal fats or fixed oils, containing not less than 95 per cent. of absolute glycerol ($C_3H_8O_3$), a triatomic alcohol existing in fats and fixed oils in combination with the fatty acids.

Glycerin represents a deep acting and a long lasting effective drug, in its effect on the animal economy, in contradistinction to the short, rapid, commonly-used compound known as nitro-glycerin, which is very short in action, and is summed up as a simple vaso-motor dilator and circulatory depressant.

Pure glycerin, in its dynamized form, goes deeply into the human economy. The chemico-physiological and pathological changes that result from the formation and ingestion in the system are completely verified by its symptomatology and its curative effects. Glycerin, in its dynamized form, proves itself to be a basic element of extreme value. It seems to have a remarkable effect on balancing the general metabolism. I can-

not help but repeat that it is a deep and positive acting remedy in the potentized form.

The proving, as presented, represents verifications covering at least four years. The proving has been conducted along modern scientific lines of investigation. The provers were examined thoroughly before and during the proving. The proving represents the work of nine male and three female provers, and controls.

The General Therapeutic Range of Glycerin.—Glycerin has proved itself to be a tissue builder and is of undoubted value in marasmus. It seems to effect most of the organs and tissues of the body. It has proved of undoubted value in diabetes, influenzal-pneumonia, neurasthenia, many forms of gastro-enteric disease, various types of headache, enlargement of the liver, various types of senile debility, acute catarrhal conditions of the mucous membrane of the pharynx, and nephritis in the aged.

General Symptoms.—The first symptom developed by glycerin is headache with a sense of fullness in the head, and throbbing, aggravated by motion; dullness of the mind; a sense of mental and physical weakness; restless sleep and dreaming; much physical languor, almost to a state of utter prostration. Loss of appetite, constipation, profuse urination, with traces of sugar. Catarrh of the naso-pharynx.

Mental and Head Symptoms.—Headache during the entire day. Heavy feeling in the head, better after every meal. Throbbing in the temple arteries, aggravated on exertion. Frequently confused; inability to analyze work; forgetfulness as to details. It positively produces a severe headache two days before menstruation. This was entirely relieved when the flow was established. Sensation of fullness and pressure in the occiput. Flushing of the face, followed by a sallow, sickly look.

Nose.—Stoppage of the nose, an early symptom of all provers. Nose is stopped up, but there is considerable post-nasal dripping. Discharge from the anterior nose; first thin and watery, later profuse and yellow. Excessive sneezing, usually worse in the evening. The discharge from the anterior nares is irritating. The coryza is aggravated towards evening. A teasing, dry sensation in the nose, causing sniffing, and a sensation of crawling on the mucous membrane.

Mouth.—Excessive dryness of the mucous membrane in the

mouth with thirst, and drinking water relieves but for a short time. Sense of heat and feverishness in the nose, throat and mouth; sweetish taste in the mouth. Mouth pasty, insipid; lips become dry and cracked.

Chest and Heart.—Sense of fullness and tightness in the chest. Glycerin produces a hacking cough and a great sense of weakness accompanies a short hacking cough; the cough seems to follow the coryza. Palpitation with dyspnoea. Chest seems too full, or as if the heart took up too much room. Concussive, jarring cough.

Backache.—Fulgurating pains in the left lumbar region, aggravated on changing position. Dull pain across the lumbosacral region, passing into the left inguinal region. There is a sense of weakness and prostration accompanying the backache.

Stomach and Abdomen.—Loss of appetite in the beginning; later on, excessive hunger, enjoying meals and feeling strong. The provers expressed themselves as never having felt stronger or better in their lives, as after a good, substantial meal. Fermentation, short, incomplete eructations, burning in the pit of the stomach and along the esophagus; gurgling in the bowels. Primarily a sense of weakness and goneness in the abdomen. After taking glycerin for three weeks this disappeared, with a sense of rejuvenation in the abdomen. Constipation was a constant and very permanent symptom in the early part of the proving. Stools were hard, dry, sometimes large, sometimes ball-like, always with great urging, and in one case with fissuring of the anus. Chronic constipation was cleared up.

Urinary Organs.—The primary effects are to produce profuse and frequent urination, annoying the patient at night, which had never been the case before. There was produced burning sensation in the urethra during micturition, occasionally severe pains during the act, which extended to the shoulders and upper part of the chest. The analysis of the urine in one case showed sugar, and this has been verified as curative in clinical work. The specific gravity increased to 1.030.

Male.—Seminal emissions which had been regular, ceased during the proving; testicles and scrotum became firmer, and a general sense of tonicity took place; the remedy did produce a tonic effect on the urogenital tract.

Female.—After taking glycerin continually for five weeks

the provers (two nurses) who had been regular and normal in their menstrual flow from adolescence, developed a very profuse menstrual flow, lasting from ten to twelve days, with bearing-down heaviness in the uterine region. The flow was bright red, with occasionally a small clot. After discontinuing the glycerin, the next flow was normal as to quantity. Three months afterward, after the persistent use of glycerin for four weeks, the same condition of profuse bright flow ensued, accompanied by weakness. A general sense of exhaustion and aggravation when moving about on the feet. The flow came on about five days ahead of time. The weakness was accompanied by some perspiration, coldness of the feet, similar to *calcareo carbonica*.

Tissues.—Severe pains of rheumatic type from head to feet. Deep, hard, painful aching in the deltoid muscles, the trapezius and the pectoral muscles, lumbar muscles and hips. The effect on the prover's feet was interesting. They were painful, and hot, with a sensation as though they were enlarged. The muscular pains were of a remittant type; they would come, last a while, and go, only to return again. After the primary effects of the drug were over the majority of the provers gained in weight and had sense of well-being about them.

Nervous System.—Severe nervousness throughout the day, with increased urination. The more excitable and fidgetty the patients felt, the more frequently they were called upon to urinate. Tired, weary, lackadaisical sensation, with much mental disturbance about trifles. Gloomy at times, typical neurasthenic state. In the beginning sleep was restless, disturbed by dreams of a nondescript character, and fullness in the head, with a feeling of indifference and general broken-up state in the morning. Later on the prover slept soundly, a quiet dreamless sleep, and awoke feeling like a new man.

Skin.—*Acne vulgaris* cleared up entirely on two students while proving glycerin. After the primary effects of weakness and exhaustion passed and the prover began to feel well, the *Acne* gradually disappeared.

Fever.—Both male and female provers developed rise in temperature and also increase in blood pressure to the extent of from 20 to 30 millimeters.

A critical analysis of the provers shows, first, that glycerin is capable of disturbing the nutrition of the vital economy in

its primary action, and secondarily, that it seems to improve the general state of nutrition.

COMPARE LACTIC ACID; GELSEMIUM.

I will offer a few clinical cases showing the depth of action of pure glycerin.

CASE 1.—Patient a homœopathic physician in Philadelphia, aged 61 years. Refused insurance on account of albumen casts and sugar in urine; has been under his own care for months; developed a severe infection on neck, six inches in diameter, with all the forms, etc., of carbuncle, was operated by Dr. Herbert S. Leopold very successfully; systolic pressure 170 millimeters; extreme nervousness; profuse urination, with a specific gravity of 1.030. Sugar, etc., in urine examined by Philadelphia chemist; extreme debility, prostration, etc. Glycerin in 30th and 200th eliminated sugar and albumin in three months, and patient gained fifteen pounds.

CASE 2. Mr. S., baker, age 66 years. Diabetes for years; weakness; dyspnoea; headache; urine saccharose, with acetone; great debility. No albumin or casts. He was placed on strict diet and given sulphur, phosphoric acid, uranium nitrate, arsenicum album, syzygium jambolanum, and potentized blood. Glycerin was then given with the result that the urine cleared up, a good appetite developed, and after a period of two years sexual vigor returned.

CASE 3. C. H. H. Baby two years old, Drs. Yeager and McFarland assisting. Influenzal pneumonia. Profuse coryza and dyspnoea. Consolidation in both lungs; weakness and debility after twelve days. Glycerin 200th was given, and a complete recovery ensued, with improvement at once.

The writer wishes to give public acknowledgment to the two ladies and his faithful students, Mr. Carl Vischer, Mr. Hobart and Mr. Kropp.

SYMPATHETIC OPHTHALMIA.—J. H. Burleson (*Texas State Journal of Medicine*, September, 1916) treated a case of sympathetic ophthalmia in which the vision of the sympathizing eye was reduced to the ability to see large objects. A subconjunctival injection was made of thirty minims of mercury cyanide, prepared according to the formula of Dr. Emmett L. Jones, of Cumberland, Md. This was followed by a severe reaction, the side of the face being swollen so that the eye could not be seen for five days. This gradually subsided. At the end of one month the vision was 20-20 and the ophthalmoscope showed the media to be clear and the optic nerve head normal.

ANTITOXIN.

BY

H. ELLEN WALKER, M.D., SHARON, PA.

VARRO, in 116 B. C., wrote the following: "Certain minute organisms develop which the eye cannot see and which (being disseminated in the air) enter the body by way of the mouth and nostrils and give rise to serious ailments." Thus you see early in the history of medicine was infection recognized and to-day by infection we generally understand the entrance into the body of living agents capable of multiplication which then cause disease.

Leprosy, scabies and hydrophobia were held to be transmissible diseases in early times and the isolation of the lepers prove that they were even then making observations on immunity. Now it is necessary to have clearly in mind what is meant by immunity and to be somewhat familiar with the theories which have been advanced to explain it. The term is confined to contagious diseases and refers to the ability of an individual to resist invasion by one or all of the specific infections.

Immunity is of two kinds: natural and acquired. Natural is exemplified in the fact that man cannot be infected with chicken cholera, or the lower animals with gonorrhœa. Acquired is exemplified in fact that one attack of small pox or measles protect more or less perfectly against future attacks. *Natural* immunity seems to exist more or less in certain individuals toward certain infections but the probability is that this is only a manifestation of *inherited acquired* immunity.

Many theories have been advanced to explain immunity. Lux, a follower of Hahnemann, recognized it when he published, in 1833, two books entitled "The Isopathy of Contagious Diseases," and "All Contagious Diseases Carry the Means of Recovery in Their Very Own Infecting Matter." Jenner recognized it when he promulgated the cow-pox vaccination to protect against smallpox.

Pasteur recognized it when he evolved his well known prophylactic treatment for hydrophobia. It is recognized to-day in the administration of antitoxins of diphtheria, tetanus and streptococcus. Since the promulgation of the germ theory and its solving the mysteries of infection and contagion, much investigation has been made to determine the basis of immu-

ity. Why is it that after these organisms have once gained a foothold in the system and poured their toxins and poisonous metabolic products into the life stream—why doesn't the victim die?

How does recovery take place and through what agency? For a time the chemical theory prevailed, viz., that a certain chemical affinity existed between the germ and its product and the body cells, whereby the germ products were rendered innocuous, and in this theory much truth existed although it was incomplete.

Metchnikoff finding germs within leucocytes and an hyperleucocytosis always present in those recovering from infectious diseases established the theory of "phagocytosis" whereby the white blood corpuscles stayed the invading army by destroying and devouring the cause of disease or *the germs themselves*. In the study of the primitive cell life of the blood we find it is endowed with the power of selecting and ingesting the food necessary to build up its own protoplasm. (Protoplasm—a substance which grows anew daily and is in constant process of formation and destruction.) The power by which it is directed toward its food and selects only that which it can assimilate is called chemiotaxis. Metchnikoff assumed that the food affinity existed between the leucocyte and the germ: that when infection occurred the leucocyte directed by chemiotaxis rushed to the point of invasion and the process of destruction began. If the leucocytes were in sufficient numbers infection was destroyed, if not the infection spread and the ultimate favorable outcome depended on the ability of the system to furnish a leucocytosis great enough to destroy the invading army. On this base it was only necessary in order to cure the disease or produce immunity that there be a high leucocytosis, but for the production of this leucocytosis introduction of the germ itself was necessary to arouse the leucocytes by chemiotaxis. In the course of time it became apparent that the introduction of the toxins alone or the metabolic products of the germ was sufficient to produce immunity, but to produce this there must be the presence in the blood serum of some specific element capable of antidoting the poison of the germ.

You have all observed the stronger and healthier the person is the longer they resist disease; the power to resist disease is different in different individuals; that certain individuals will never take smallpox no difference how great the exposure nor

can they ever be vaccinated no difference how often it is tried. It is well known that the resisting power of an individual varies, is stronger at one time of day than another, varies with state of digestion, the quality of blood, etc. What this specific resisting element is we do not know, but Wright has called it opsonin from the Latin "opsoni," "I cook, or I prepare."

Opsonin is found in the average normal individual in a certain but slightly varying amount, and when the amount is decreased the person shows an increased susceptibility to disease. It has been proven that the amount of opsonin can be experimentally increased, with resultant increased resistance or immunity for the patient. The ratio between this degree and that possessed by the average normal adult is called the "opsonic index."

As the opsonin is used up new opsonin is furnished in increased quantity by the body cells—nature in repair work takes no chances of underdoing things. She always sends an oversupply of workmen and material, consequently as the specific opsonin is withdrawn an excess supply is furnished and the opsonic index is raised higher and higher till soon it becomes impossible for the germ to gain a foothold in the system. This leads to the study of vaccines. The term is derived from Latin and means something pertaining to cow or heifer; came into use with Jenner's theory of cow-pox inoculation. To-day, however, the term vaccine has come to have a broader meaning and refers to any culture, metabolic product or toxin capable of inducing the state of immunity.

Wright's vaccines are watery emulsions of cultivated bacteria heated to such a temperature as shall insure a sterile culture and yet leave the toxins active. Now a small portion of the vaccine is injected into the blood current, the specific opsonin attacks it and digests it. The culture being sterile has no power to reproduce itself in the blood, consequently, as soon as the original injection has been injected by the leucocyte the trouble is over. But the body cells in replacing the opsonin used up, overdo it and the opsonic index is slightly raised above normal, by repeated injections the opsonic index can be raised to such a point that the injection of the living germ or its active toxins produce no effect upon the system. The opsonin destroying the invader immediately. This is the state known as immunity.

This knowledge of the possibility of producing immunity by

the injection of vaccines has been made use of in many ways and it explains many paradoxes in medicine. Localized infections as carbuncles, boils, acne, tubercular abscesses, tubercular glands, have all been cured by vaccination with a sterile culture of the infecting agent.

Koch's tuberculin was a vaccine; so is his new tuberculin S. B.

The Pasteur treatment for hydrophobia is the production of an acquired immunity in an exposed person by the vaccine of hydrophobia. Tetanus is protected against in a similar manner.

When we get systematic intoxications like diphtheria and general streptococcus infection we discard the vaccines and get into the realm of serum therapy or as they are better known, the "antitoxin group."

Antitoxins are best exemplified in the well known diphtheria antitoxin and a description of its production will suffice for all.

All the large antitoxin manufacturers keep on hand cultures of the most virulent type of the germ obtainable. The horse is used as the medium for the production of the antitoxin. Injections of minimum doses are begun and gradually increased till the animal can receive immense doses without effect. He has now elaborated within himself enough antitoxin or a high enough opsonic index to render him practically immune to the attacks of the Klebs-Loeffler bacillus. He is now bled moderately and by a laboratory process the serum laden with the antitoxin is separated from the other constituents, trik resol $\frac{1}{2}\%$ is added as a preservative and the product stored away in sterile glass tubes as diphtheria antitoxin.

This potential serum with its concentrated antitoxins is now injected directly into the tissues of the body it is desired to immunize. The principle differs from vaccine injections in that the vaccine injection seeks to stimulate the body cells to themselves elaborate the antitoxin in a natural manner and in sufficient quantity to protect against invasion and is necessarily, therefore, a slow process and cannot be carried out if the blood is already full of the germ and its product. In antitoxin injections the antitoxin itself is supplied at once artificially and its effects are immediate.

In vaccination it is necessary to begin with minute doses as large doses greatly lower the opsonic index and produce aggravation. While in antitoxin there seems to be no limit to the

number of units which may be injected, 20,000 having been used at one injection and 100,000 having been used on one patient. (The use of antitoxin is simply supplying a chemical or physiological antidote to the diphtheria toxin comparable to supplying an alkaline base in acid poisoning.) The two unite to form an inert compound. Antitoxin in itself is non-toxic. A few words here as to the practical use of antitoxin may not be amiss as it has become a recognized treatment the world over.

According to Ehrlich's theory there are three principal compounds in the toxin of the Klebs-Loeffler bacillus: toxin toxoid and toxone-toxin is the active poisonous constituent. It causes the fever, prostration, cloudy swelling and later the fatty degenerations of the heart and kidneys—when death occurs acutely it is due to toxin. (Toxoid in itself seems to be non-toxic and is probably toxin which has been rendered inactive.)

Toxone has a peculiar affinity for the nerve cells. It is much slower in action than toxin. Though ultimately quite as destructive and is responsible for the late paralysis of diphtheria. Of these three constituents toxoid seems to have the greatest affinity for antitoxin, combining with it readily. Toxin comes next, also combining with it fairly readily, toxone combines but indifferently, slowly and only after the toxoids and toxins have been surfeited. This teaches what? That if a small dose of antitoxin be used it is taken up by the toxoids and no result is obtained. The toxin and toxones still being active, that an amount sufficient to destroy the toxins and stop the acute symptoms of the disease does not necessarily destroy the toxones and prevent late paralysis; that to destroy the toxones large and repeated doses must be given; that above all it should be given early in the disease before large amounts of toxones have been elaborated for the toxones at best combine but indifferently with the antitoxin. If given late in the disease it should be given in large doses repeated often and continued even after all signs of acute disease have subsided. Some reaction usually follows shortly after the injection of antitoxin. If given early an increase of fever and restlessness follows for a short time, probably due to the increased chemical or physiological activity in the blood. If given late it may be followed by acute depression (if incipient paralysis is already present) due either to the shock of introduction or from the inability of the weakened heart to sustain the burden of the increased activity present.

Occasionally one hears of sudden death following antitoxin injection. This may be due to carelessness on the part of the operator in permitting air to enter the wound where a vein has been opened. It may be due to what is known as an hemolytic effect. It is well known that the sera of certain animals contain elements known as cytotoxins which have the property when added to the sera of certain other animals of rapidly destroying the cellular elements in these sera.

Thus, if the serum of a guinea pig be injected into a horse in a short time the serum of that horse becomes hemolytic for the pig and its injection will be followed by rapid death.

Snake venom destroys life through the same hemolytic action. It is possible that when death has rapidly followed small immunizing doses of antitoxin that some peculiarity of the individual has rendered him peculiarly susceptible to this hemolytic action of the serum in the antitoxin. Is serum thereby homœopathy? (In themselves the antitoxins are non-toxic and can produce no symptoms upon the healthy.) Are they prescribed according to the homœopathic law? What is their action? etc.

Dr. Martin Deshere, of New York, claimed that the serum treatment is a method of cure governed by the law of similars, no matter whether such a fact is admitted or not, no matter whether the drugs employed are called nosodes or antitoxines.

As regards the vaccines it is the opinion of eminent men, even of such as Von Bering of the old school that they are a perfect exposition of the homœopathic law. We find in the preparation of the vaccines that they are prepared not unlike Hahnemann's method of preparing homœopathic remedies. They are triturated and diluted until the active principle contained is infinitesimal in amount. Then an infinitesimal dose of this preparation is injected. The dose is not repeated until the effect of the first dose has worn off. Large doses produce a marked aggravation of the existing disease as in homœopathic therapeutics.

Tuberculin is now prescribed in doses of 1/1000 part of a milligram, corresponding to our 6x, and now very, very much smaller doses are being used to escape the aggravation produced by even this minute dose. If vaccine is the true similimum of the corresponding infectious disease, then why don't we treat contagious diseases with vaccination, not by drugs? But, unfortunately the vaccine injection is of little or no value in infec-

tions where the general blood current is involved, and if this be the true similimum we would have to hold up our hands and say homœopathy here was powerless, but with our drugs given according to similia we are not powerless. Merc., bin., kali. mur., lach. in diphtheria; bell. in scarlet fever; bry. in measles have demonstrated their power for a century. How and why does the homœopathic similimum cure? What does a homœopathic remedy do but arouse nature to antitoxic action? It is a fact that every poison produces its own peculiar antitoxin or a rise in the opsonic index, for one germ does not protect against infection by another. Diphtheria is not cured with hydrophobia antitoxin, nor hydrophobia with anthrax antitoxin, neither is a belladonna case cured with sulphur.

Certainly, every healthy body, i. e., every healthy body whose cell life is not yet paralyzed by the invading poison produces antitoxin as a result of its natural self defense; and thus we see that the term antitoxin should not alone be applied to bacillic serum culture, but to all else that manifests itself as anti (against) toxin (poison) whether it be elaborated in the organism, viz.: *medicatrix natura* or nature's own curative energy, or administered by mouth or subcutaneous injection, or by direct contact, if it stands against, or acts against the toxic condition, it is an antitoxin and differs only in its mode and degree of manifestation.

In the production of phenomena, we are interested first in the facts, then we desire to know the principles that underlie and produce the phenomena, the law governing it—for all things on this mundane sphere are under the domain of law, physical, chemical or dynamic. If we stand with reverential awe at the mention of the names of Koch, Pasteur, or perhaps a Wright, we should bow in adoration at the cadence of the name of he who wrote the "The immaterial vital principle that actuates the animal organism," etc., was the real energy to restore the equilibrium or the health of the body. Whether this immaterial principle is influenced by isopathic serum injection—association of dynamic or chemical influences—the fact stands that by and through that principle the results are obtained.

PHENOL IN THE TREATMENT OF ACUTE POLIOMYELITIS.

BY

WM. F. BAKER, A.M., M.D., PHILADELPHIA.

THE classification of this disease into the class of the infectious diseases is a decided advance in medicine, and it will incidentally reduce the toll of cholera infantum, a generic term used to cover up all deaths among children under two years, for notwithstanding the hottest summer in twenty-two years, the percentage of infant mortality from gastro enteric disturbances received but little attention. This classification will be a boon to children owing to the fact that more scientific diagnoses will be made and their symptoms more accurately studied.

After a study of the epidemic in the city of New York for a long period of time, four striking facts were apparent:

1. The undoubted value of the quarantine.
2. The value of cleaning up the food supply.
3. High percentage suffering from permanent paralysis.
4. High mortality rate as to life.

I believe the mistake has been made in the time lost awaiting a pathological entity before therapy. This I believe to be the common error in modern medicine and leads to chaos on therapy and a loss in public opinion, whereas the observations of a clinician are very often set aside when the public service rendered by that clinician has been of undoubted value.

Therapy must be founded on public service, as it is not compulsory. A combination of the two would be ideal therapy. From a neurological standpoint, four types of the disease have been presented in this epidemic:

1. Abortive, perhaps the most dangerous because it is so liable to be overlooked.
2. Bulbo spinal type.
3. Cerebral and meningeal type.
4. Bulbo pontine type, characterizing this epidemic with a decided fattening of the face and no other muscular paralysis.

The mortality rate standing as it does at 29% to 30% does not alarm us as much as our inability to treat convalescents, for with a resultant paralysis in 83% of cases, we will have our hands from this epidemic on perhaps 30,000 cases, and not

2% of our hospitals able to take care of convalescents, because of lack of physical departments, which must do the greater part of the work on these unfortunates.

As a conservative policy, it is better to permit therapy to remain in the hands of the experienced clinician until a pathological entity is discovered in the laboratory, then to be given to the clinician who is broad enough to accept entireties in investigation. A brief view of the conditions that have been observed during this recent epidemic will give you a comprehensive knowledge of the condition. Contrary to most ideas, the onset is insidious in the majority of cases, and varies from a slight fever and malaise to severe convulsions. A valuable sign early is the "muscular rigidity which can be classed as a hypertonicity" rather than a "spasticity" associated with irritable reflexes.

Usually, within 48 hours, or even less—24 hours—and in one case six hours, a certain *definite paralysis* makes its appearance in the *hypertened muscle*. The paralysis is not progressive, usually of a monoplegic type or paraplegic.

It is to be regretted that very often the first inclination towards a diagnosis must come from the parent, who notices "that the child cannot use an extremity."

The most common seat of lesion is in lumbar, then dorsal cord, and in severe cases, especially in adults, in bulbar nuclei, and in one case reported, evidently in the medulla and pons.

At this stage the reflexes are lost, and this will suffice at times to differentiate cortical brain lesions or basilar meningeal lesions not of the true specific type. In the early history of the present epidemic it was my misfortune to observe an abscess of the middle ear confused with acute poliomyelitis, and death resulting from lack of attention to this detail of examination, or at least the attending physician would have felt relieved had a mastoid operation been performed instead of transmitting the child to the municipal institution.

Early, also, we have the *reaction of degeneration* showing itself, and given an increased galvanic reaction with a corresponding diminution in the faradic reaction in any case of suspicious nature, one has gone a long way in the solution of the diagnosis. The electrical reaction plays a most important rôle in the diagnosis of this condition and one cannot well prognosticate concerning these conditions without a thorough knowledge of electricity. The stages, if you please, then are the *electrically given*—

1. Onset (diminished faradic) (increased galvanic reactions.)

2. Complete first stage: reaction of degeneration complete, climax paralytic.

3. Disarrangement of these reactions either way: atrophy or recovery. The prognosis depending solely, in my experience on the disarrangement of these reactions, for if the reaction of degeneration be complete and lasts for a period of four weeks, personally I would hold out little hope of recovery from the atrophy by gradual development changes which are necessarily slow. The rapid disappearance of the galvanic irritability is a favorable sign.

As to *etiology*, I believe that materially different views will be held after this epidemic than now exist, for it has been recognized that infection of the cord may show different forms with and without atrophy, contractures and paralysis.

True it is that many of these cases give a history of coli bacillus infection and also history of chilling the body after a period of heat. This has been especially true of the climate here in the Eastern States. The preponderance of a low temperature in the direction of the wind when the diurnal temperature has been over 87%. It is reasonable to assume that such climatic conditions influence the disease.

In 1888 Bacelli read a paper before the Congress of Medicine in Rome setting forth the value of phenol in tetanus. Prior to this time he had used the drug on 600 cases of neuralgia and noted what appears to be the best unintentional homœopathic proving of the drug to my knowledge, and the Librarian at the College of Physicians in Washington is unable to find any literature bearing on the treatment of infantile paralysis where this drug has been used.

After some difficulty I was able to have translated several of the lesser writings of this investigator on phenol and verified from the translations what seemed to me to be a homœopathic proving of the drug and suggestions for its use in an attenuated form in case of neural irritation, both peripheral and spinal. The results from the study of the cerebral symptoms do not as yet give us much information. It was found that after the administration of the drug for certain painful affections of the nerve and for certain spinal infections, symptoms were observed with such regularity that they at least from the homœopathic standpoint ought to bear inspection. Dr. Clar-

ence Bartlett has given us the best monograph in the English tongue on the subject of the crude drug in solution. These observations differ somewhat in that the drug is triturated thoroughly with pure glycerine before the diluent distilled water is added. Bacelli's success in the treatment of neuralgia was brilliant for his time, and the first cardinal symptom observed was the property of the drug for diminishing reflex spinal activity. He further declares its value as a sedative to spinal lesions of the irritative variety, and further exploited it as an antiseptic, removing many of the toxins that were responsible for these neuralgic affections. Shortly after its use in large doses (60 gr.) he noticed marked albuminuria, claimed that it coagulated albumen, was slow of absorption, but was rapidly eliminated and had developed marked symptoms of motor type of spinal irritation associated with albuminuria and gastro enteric symptoms.

He then concluded to try the drug well diluted with water and noticed that diluted solutions were incapable of coagulating albumen, were readily absorbed, as readily eliminated and were without cumulative action. Likewise he observed marked antidotal power of the dilute acid on tetanus toxin. This was perhaps the greatest good that his experiments did.

Personally I have used 241 grains in the dilute solution in 24 hours without the slightest trace of albuminuria in a case of tetanus under observation in the wards of the Hahnemann Hospital of Philadelphia. The symptoms resulting from the overdose of the drug during Bacelli's experimentation were markedly spinal and gastric and the absence of these symptoms in doses as large as 241 grains clearly proves that in an attenuated state, the acid is liberated and eliminated rapidly. That the trituration of the crystals favors their tolerance can also be argued.

It was then upon these terse facts that the drug was suggested in its homœopathic use in an attenuated form where "spinal depression" was the cardinal symptom, as it is in infantile diseases. According to symptoms the drug must anticipate the paralysis when "muscular hypertonicity rules" as is found in some cases of infantile paralysis. In some cases the symptoms resemble early tetanus. This homœopathic principle of action would permit us to anticipate a spinal infection and I believe save valuable time.

Bacelli also observed a variation in the electrical reactions in patients taking large doses of phenol.

The marked hypersensitiveness of all nerves of special sense also was observed by Bacelli.

The gastric symptoms were those of nausea, vomiting and marked constipation.

A complete review of the translations of Bacelli's writings will reveal perfect pictures of the cases as we find them early in this epidemic of course before paralysis has set in.

Bacelli used mostly hypodermic injections but the paralytic phenomena are being studied after the experiments of Porter, who, after the lesions had been localized, injected carbolic acid at or near the point of localization into the spinal canal.

The intravenous injection and the injections above the diseased cord into healthy spinal tissue, also the cerebral injections of brain emulsion directly into the brain substance, offers us further grounds for study that we cannot take up in this short paper, but gathering from all, we have a most complete symptom complex such as has been presented in our recent epidemic, and in lieu of a better drug—and here I ought to mention belladonna in 3, phenol covers in its totality from an unintentional proving a complete case of acute spinal infection resulting in paralysis.

Of course where the reaction of degeneration is complete and delicate nerve tissue has been replaced with connective tissue, the nerve ceased functioning the paralysis must be permanent. The symptoms of phenol call for its early use. It is fair to assume that Bacelli proved unintentionally phenol and gave us valuable data as to its therapy when applied in an attenuated form.

He says there are three indications to be met in acute spinal infection:

1. To encourage free elimination and thus favor the withdrawal of toxin from the already infected areas.
2. To prevent further infection.
3. To counteract the effect on the cells already infected.

The first indication is met by sweating and diaphoresis which usually is present, and the whole picture of the provings of phenol so closely resemble the epidemic in its present form that one has a totality of symptoms corresponding to the pathological picture of infantile disease when the toxine acts on the cord and medulla.

Owing to the symptom similarity, more as an experiment, phenol was tried by mouth with gratifying results in the con-

trol of fever and the early muscular tonicity. There was a quick response in the reduction of fever within 24 hours, and in many cases complete cessation of the vomiting.

Within 48 hours many of the cases had lost their virulence, although paralysis began to show but where at the beginning there was an extensive hypertonicity, indicating an extensive paralysis, perhaps only an extremity would eventually suffer.

At times it was hard to distinguish between this remedy and belladonna, for belladonna was the simillimum for many of the cases, and on more than one occasion the surprise of the medical inspector of the Health Bureau was evident on his second visit to note the improvement in the case.

That phenol is a positive aid to elimination when given in an attenuated form cannot be denied, and it is because of its rapid elimination that even children can stand large doses.

During our observation through the greater part of the summer, the results have satisfied me beyond any claims made by the serum.

METHOD OF USE.

Preparation.—Pure crystals of phenol (Merk's) were weighed off to make the required solution. These were placed in a wedgewood mortar and a large pestle used for triturating. The volume of the diluent was made up of $\frac{1}{3}$ glycerine and $\frac{2}{3}$ distilled water in separate containers. Add the glycerine drop at a time, while triturating, and then add water, giving you a perfectly clear solution equivalent to our centesimal trituration of the drug. Dr. Borneman advises me that this is a trituration and not a dilution. This is administered to the patient well diluted with distilled water, beginning with five drops hourly during the active stage of the disease, increasing the amount daily up until the fifth day, watching carefully the urine twice daily for quantity and albumen. Continuing the increase until symptoms are controlled, then reducing the dose down to $\frac{1}{2}$ of the original high dose and continuing for a period of ten days, the criterion being the fever and gastric symptoms. The solution should be made fresh daily and tested as to its reflection and refraction of light, discarding any specimen that does not remain clear.

In conjunction, the following medical methods were used: Cold affusions of the head by means of compress saturated in

water, temperature 40° . As these children do not take kindly to the ice bag. Sponging of the entire body with water at a temperature of 80° to which has been added alcohol and a few drops of phenol pure. The sponging is done without exposing the body, for having the bed clothes suspended on barrel hoops, the nurse can readily introduce her hand under and sponge off part of the body at a time. During the first 24 hours to 36 hours of all cases continuous enteroclysis by the Murphy position and drip in which was used phenol solution one drachm of the 1% in two quarts of water at a temperature of 90° . A high enema of glycerine and water being used to clear the bowels before beginning the treatment. This can be used in the presence either of a diarrhoea or constipation.

Nursing.—Much good depends upon a good neurological nurse, both for patient and family. A darkened room with sound and lights excluded, well aired and patient clad in light bed clothing. The patients have a tendency to lie on the paralyzed side. The nurse is instructed to change the position of the limb and body frequently, taking the precaution to alter the position of the affected limb, and, if necessary, supporting the limb in the direction of action that those affected muscles would occupy. Observers have claimed this to lessen atrophy.

Electrical treatment is not begun until the cessation of the fever.

LEUKEMIA.

BY

J. C. MCCAULEY, M.D., ROCHESTER, PA.

LEUKEMIA is a disease of the blood and blood-producing organs. It is of unknown origin, characterized by certain changes in the blood and viscera. In many respects it resembles a tumor formation in a fluid tissue. There is enlargement of the spleen and lymphatic glands. The disease may come on rapidly, with anemia and loss of flesh and strength. Usually the onset is insidious, the deterioration of the general health or the swelling of the spleen or glands being first noticed. The changes in the blood consist in a decrease of the number of the red cells, diminution of the amount of hemoglobin in each cell and general increase in the number of leucocytes and lymphocytes.

The most common form of the disease is that showing enlargement of the spleen and glands and a peculiar change in the bone marrow. Next is the form in which only the spleen and marrow are changed, and the third form is that in which the glands alone are changed. This is the lymphatic variety and is much less common than the other forms described. They are essentially one disease, although called by various names. Besides the increase in the number of leucocytes, a form of the cell only found in the bone marrow appears in the blood.

Von Leube says his conception of leukemia is: "The action of a specific agent causes a pathologically great stimulus to the growth of the hematopoietic tissues of the body which especially affects the production of the white blood-corpuscles. As a result of this, a flooding of the blood at one time with lymphocytes, at another time with leucocytes, with mature and immature forms of the same occurs. This change in the blood is continued partly by the pathological irritation of the blood-forming organs, partly because of the superfluous white blood cells which are insufficiently used up in the economy of the body."

Etiology.—Virchow discovered leukemia in 1845 and described it as the result of the morbid activity of the blood-forming organs, and in which the blood alteration forms the essential feature of the progressive and pernicious courses of the disease. The blood changes dominate the clinical picture and are shown by the post mortem. Without a thorough knowledge of the composition of the blood and of its different elements the diagnosis of leukemia is impossible. Leukemia may appear at any age and in either sex. It is most frequent in middle life and occurs in the proportion of two males to one female. Although a great amount of careful clinical research has been undertaken in the disease, the cause is still obscure.

Heredity seems to have some influence upon it, etiology, trauma, intestinal autointoxication, bad hygiene, syphilis, malaria, latent tuberculosis, etc. That it may be due to a microbe is thought by some because of the rapidly fatal course in acute cases. My own opinion is that it is due to an infection, the poison entering the system in some unknown manner. This impairs the process of blood formation, especially of the white blood cells. If the changes in the blood affect only the red blood cells we only have anemia to deal with, but if the poison

affects chiefly the white blood cells so that their number is increased and their relation is pathologically altered, then we have leukemia.

Symptomatology.—The symptoms of leukemia develop, as a rule, very gradually. Usually the patient notices an increasing languor and weakness which are frequently associated with a striking pallor. The patient has the disease well marked when first seen. Not infrequently the signs of a hemorrhagic diathesis becomes evident early in the disease. In the later stages the hemorrhages may become quite serious. Hemorrhages into the brain may lead to hemiplegia and thus be a direct cause of death. Hemorrhages of stomach, intestines, kidneys and even into the skin may be observed. I once had a case of fatal hemorrhage from the stomach.

The splenic enlargement is the most noticeable change, clinically speaking, in the internal organs. In the beginning of the disease this may be but slight, but finally it reaches such dimensions that the spleen may extend far over into the right half of the abdomen. Usually the enlarged spleen is of a firm consistence, presents a sharply defined edge, sometimes notched. The subjective symptoms, in the beginning particularly, are but slight. After the spleen has become very much enlarged, however, there is a distressing tightness and fullness in the abdomen making it difficult for the patient to lie on either side, as the respiration is impeded by the pressure upward on the diaphragm. The liver is usually enlarged. It seems to have a sharp edge that may be felt low down in the abdomen. The lymph glands are only rarely swollen.

The involvement of the bone marrow is usually noticed in the clinical picture only because of the changes in the blood. Marked cases of leukemia are usually manifest at first glance owing to anemia, but I have a case in mind where the patient seemed in appearance to be in the best of health, only complaining of being tired and weary. The anemia in the case did not develop until the later stages. Sometimes very severe bone pains are present. One symptom I have noticed, viz., that the sternum seems very tender to percussion. Organic changes in the lungs are rare. Pleurisy is rather common. The urine usually has a high percentage of urea owing to the increased destruction of albumen in the body. The marked excretion of phosphoric acid depends on the same cause.

The glands most commonly enlarged are the chains along

the neck, those in the axilla, the abdominal glands, the glands of the groin and sometimes those of the thorax. They may be barely large enough to be felt or may form bunches in these parts that are plainly visible.

The temperature shows the same tendency to elevation as in severe anemia. In advanced cases we have very high intermittent elevations of temperature, up to 103 to 105. These are usually preceded or accompanied by pronounced chills, and the subsequent sudden drop in temperature is followed by a severe and exhausting perspiration. These high temperatures are due no doubt to toxic products in the decomposition of the blood cells. Complications in leukemia are rare. Still acute diseases are sometimes seen and it is remarkable that the number of white cells sometimes return entirely to normal during such a complication.

Diagnosis.—The diagnosis of leukemia is, in the majority of cases, not difficult, but quite easy, in well defined cases. We are always dealing with leukemia when the proportion of white cells to red is 1 to 15 or less, and the absolute count of leucocytes or lymphocytes is 30 to 50 times greater than normal.

Having made our diagnosis, we must determine to which form it belongs and treat it accordingly. Mixed forms of leukemia are not common, although there may be individual cases.

Acute leukemia is the term applied when the disease runs a very rapid course. Sometimes the whole duration of the disease is less than two months. Such cases are usually of the lymphatic type, usually found in young people, and the lymphocytes are unusually large and found in great numbers.

Prognosis.—The prognosis of leukemia is absolutely unfavorable. Death will surely be the outcome of the disease. This is true not only of the acute form, but in the chronic form as well. In the acute form, where death occurs in a few weeks, the symptoms resemble the most severe septic infection. Although the disease is progressive, approximate treatment may produce temporary improvement. Cases of reported cures either were reported too soon or a faulty diagnosis had been made. Since we have the new methods of blood examination we are certain of our diagnosis. This is a gloomy prognosis but is based on our experience thus far, and it is to be hoped that when we gain more exact knowledge of the disease our treatment may become more effectual.

Treatment.—A few drugs have their place in the treatment of leukemia. Where cases have seemed to have decided remissions in the course of the disease, when of a chronic nature, we are led to believe that these remissions were due, at least in part, to the remedy.

Arsenic is the drug which most deserves our confidence. During its administration, in some cases at least, there is an improvement in the condition of the blood. The red corpuscles are increased and the white diminished. The splenic enlargement is arrested and the danger from hemorrhage greatly diminished. The best form of administering arsenic is Fowler's solution.

Another form of administering arsenic is a combination arsenic and quinine. Some claim its action is remarkable. I have had no experience with it.

Ceanothus is a remedy that should be strongly indicated for the splenic condition and has proved useful in many cases. Some patients, however, cannot take it, as it will aggravate the symptoms in tincture and even up to the 12th dilution.

Some years ago at Johns Hopkins Hospital some cases of leukemia were found among benzol workers. Since that time a number of cures have been reported. Dr. J. P. Cobb, of Chicago, reported a case at the American Institute in 1914. Since that time I have talked to Dr. Cobb in regard to benzol and he was not very enthusiastic as to its therapeutic value.

I quote from cases reported by Drs. Meyers and Jenkins, *New York State Journal of Medicine*: "Benzol is a valuable addition to the therapy of leukemia of any kind. Its institution is, however, so recent and clinical experience so scanty that definite conclusions as to its intrinsic value should be held in abeyance. It would seem to have no uniform action; in all cases it reduces the white cells but in some, apparently those with very high counts, it does not reduce the leucocytes to normal in case of 100,000 to 200,000, it may give brilliant results with normal white counts, greatly diminished or normal spleen, distinct gain in weight and strength and loss of fever on the other hand. We may have paradoxical reaction with falling white counts and gain of strength with no change in the spleen or we may find decrease of the spleen with persisting high leucocytic counts, or there may be low counts with many pathological leucocytes, or there may occur sudden leaps in the number of white cells. The red corpuscles and the haemoglobin

are usually very beneficially influenced. When X-rays can be used in combination very favorable results may be obtained, the blood returning to normal with no persisting myelocytes. It is very probable that the results of benzol therapy are variable, for two reasons: First, The cases in themselves vary in intensity and in the fundamental pathologic conditions or etiological factors in the bone marrow, the spleen or lymphoid system. Second, The results are in some way dependent on the size of the dose of benzol, which dose may be either stimulating or depressing to the tissues involved and this dose may be peculiar in a marked degree to each case or individual. We would therefore suggest that the effect of benzol should be carefully checked by daily blood examinations so as to gauge the optimum dose and to forestall any symptoms of benzol poisoning."

THE EARLY ORTHOPEDIC TREATMENT OF ANTERIOR POLIOMYELITIS.

BY

JOHN BROOKE, M.D., PHILADELPHIA.

THE present epidemic of infantile paralysis has caused us grave concern, not only on account of the great number of cases, but because of the virulence of the infection, as shown by the severe types of paralysis and attendant high mortality. I feel, however, that we can be rather hopeful of the ultimate result in the vast majority of cases that survive. First, because there seems to be greater tendency, even in the severe cases, for spontaneous recovery than in some of the previous epidemics. Secondly, our better knowledge of the disease will enable us to handle these cases in a more advantageous manner. We can prevent deformity and can conserve the remaining muscular power and encourage the regeneration of muscular fibres.

Most patients that survive the attack of poliomyelitis present mechanical problems from the start. It is distinctly a condition calling for the aid of the orthopedist.

In the acute stage, there is usually marked sensitiveness of the paralyzed part and pain on motion. There is a tendency for the affected part to assume a deformed attitude; the hip becomes flexed, the knee bent, and the foot dropped to

an equinus. There are mainly three ways that deformity following polio occurs:

1. By the force of gravity, as, for example, the patient sitting on a chair with limb hanging down, the foot naturally drops into a position of equinus. Soon contractures occur and the limb is fixed in this deforming attitude.

2. By the unopposed muscular action, as when the peronei muscles are paralyzed, the strong tibialis anticus is unopposed, and pulls the foot into a distinct varus.

3. By functional use. An illustration of this is shown by a patient with weak calf muscles walking without support. The muscles and heel cord are stretched, the foot goes further and further into dorsal flexion and we soon have a typical calcaneus or hook foot.

To prevent deformity, as well as over stretching of the paralyzed muscles, and to relieve the pain caused by motion, and to give that which is so necessary during the acute inflammatory stage, absolute rest of the affected part, there is no better way than by the application of plaster-of-Paris. If properly applied over a double layer of sheet wadding, it meets all the requirements, and supplies the necessary warmth which is grateful to the patient, and the part involved is immobilized. This relieves the pain, because the pain is usually only present on moving or handling the paralyzed part.

Rest not only lessens pain, but aids Nature to restore function by giving her a favorable condition for carrying away the products of inflammation and by prohibiting communication of nerve impulse through the congested nerve cells.

There has been considerable criticism of the application of plaster-of-Paris in these cases, but the criticism has come mainly from those not familiar with the use of plaster. The claim is made that the casts cause more marked atrophy, and that would be true if the plaster were left on indefinitely, but the writer advocates its use only during the acute and early convalescent stage.

Plaster-of-Paris is applied with a definite object in view, and that is to prevent deformity, and it must be applied intelligently and to meet the requirements of each individual case. Ordinarily the feet should be at right angles with the leg; the legs and thighs almost fully extended. When the deltoid and upper arm muscles are involved, the arm should be abducted and a shoulder spica applied. If the muscles of

the back are involved, a plaster jacket or a posterior shell of plaster is of great advantage. The latter does not inhibit the muscles of respiration and the body is held perfectly straight.

At any rate, if plaster is not used, the limbs should be maintained in some way in a position free from deformity, and the bedclothes should be held off the feet by a wire cradle or other device.

After eight or ten weeks or more from the onset of the disease, when the sensitiveness of the spine and over the affected muscles has entirely disappeared, massage, electricity, hydrotherapy, muscle training will be of much advantage in restoring and maintaining the tone in the paralyzed muscles. At this stage it is necessary to split the plaster and use just the posterior part of the cast, which can be replaced after each treatment, and held by a bandage. The supporting braces of the various types will be of great value at this time, and can take the place of the plaster. The indications for the application of braces are definite, and no braces should be applied except to accomplish certain absolute needs. The joints of the supporting apparatus should be made so that motion is only permitted in the direction of the muscles which are paralyzed.

The object of plaster-of-Paris and braces at this time is to prevent deformity and over stretching of the paralyzed muscles and ligaments about the joints.

Massage, hydrotherapy and electricity are of some value in keeping up the muscular tone and should be followed over a long period of time, months and sometimes years. But it is the muscular training that I believe we can expect most from, if the muscles are not over stretched and contractures allowed to form.

More can be expected from muscular training when it is directed by some one having a special knowledge of this line of work. It should be begun very cautiously at first, never tiring or stretching the weakened muscle. The exercise should be given with no strangers present, especially other children, who may divert the patient's attention. The mind should be concentrated on the exercise and it is often advisable to begin training before a mirror. The part to which the muscle belongs is put through passive movement with slow rhythm in the direction of the paralyzed muscle. The patient is then

directed to make an effort to move the part in the same direction, to whatever extent that is possible, and the assistant supplying the power needed to complete the actual motion. As the muscles show some returning power, slight resistance may be made to the effort, increasing as the power returns. While the patients' power may seem very small at first, it is remarkable what they can work up to. This training must continue over a long period of time and requires a painstaking effort. We know this method is of value; presumably this training causes the impulse sent from the brain to the paralyzed muscle to take new paths around the degenerated area or jump across the broken circuit.

Do not begin massage, electricity or muscle training until tenderness and inflammatory symptoms have disappeared.

Fatigue seems to greatly inhibit the return of muscular power. The application of heat, especially an electric light bath or an immersion in hot water, given before the massage or muscle training, increases the effectiveness of the procedure. Muscles work better at a higher temperature and heat increases the circulation to the part.

Electricity has been strongly advocated by some men during the convalescent stage. The various forms, Galvanism, Faradism, high Frequency, static wave and the sinusoidal current are used, but the men of most experience with the end results in these cases, claim it is of but little value. It tends to preserve the muscular tone, but does not in anyway restore degenerated nerve cells. Some of our leading orthopedic men—Lovett, of Boston, among them, assert that electricity is absolutely useless in the treatment of these polio cases.

During the later convalescent stage, every attempt should be made to encourage functional use of the affected part in a physiological attitude without tiring or straining the affected muscles. If the muscles of the back are paralyzed, the patient should not sit up without support. If the legs are involved, they should not be allowed to walk without braces or plaster, because there is a lack of muscular balance and stretching of the paralyzed muscles will surely occur. The abnormal position of the part and unusual strain on the ligaments about the joints, caused by lack of muscular balance, will soon result in fixed contractures and later, secondary bone changes with marked deformity.

The later operative work belongs entirely to the specialist,

and many brilliant results can be obtained in these cases by tendon transplantation, tendon fixation, silk ligaments, arthodesis, and astragalectomy.

In conclusion, let me appeal to you to make an earnest effort to prevent the deformity in these recent cases. In your old polio deformities, remember that much can be done to improve the condition; the braces worn may often be discarded. That the most hopeless should never be abandoned to their fate, for their contractures can be overcome and deformity lessened and their legs and feet placed beneath them in the direct weight-bearing line so that locomotion is greatly improved.

THE INDEPENDENT HOSPITAL---ITS VALUE IN PROMOTING MEDICAL KNOWLEDGE.

BY

R. V. WHITE, M.D., F.A.C.S., SCRANTON, PA.

THE advances made in medicine during the past twenty years and the continued progress of the present time can be directly attributed to the carefully managed and well equipped hospitals of that day and ours. While it is true that here and there an individual working in an independent laboratory has discovered and promulgated some startling and wonderful medical facts, this is the exception: The greater progress has been accomplished by a number of men working as a unit—guided by some genius—the results of their combined effort equal the advances and discoveries of modern medicine. You are all so familiar with what has been done that it is needless to mention any illustrations. Suffice to say that what has been done will be done again as time goes on. This statement as to the relative merits of hospitals in advancing medical knowledge has been mainly true of those centers, which might be called "Medical Centers" and which are connected with teaching institutions. When one visits these institutions one is impressed with the fact that those of us who are connected with hospitals remote from these centers, are losing many opportunities to advance in medical knowledge and skill. Too many of us look upon our staff appointments as a means of individual advancement and forget the duty we owe to the

profession. We become selfish in the use of our clinical material. While we admit the generality of these foregoing statements, and we wish to particularize, "How best can we use the so-called independent hospital as a means to advancing medical knowledge?"

We believe that no hospital, no matter how small, can exist for very long nor advance at all unless there is a complete and definite staff organization with meetings frequent enough to fulfill the individual needs of that institution. The finest hospital ever constructed, no matter how well equipped, can be useless to a community both lay and professional. This is a day of the union of interests. Small business by combining has accomplished marvelous results. By a union of interests labor has brought about a betterment of conditions which augurs well for their future.

Medicine and medical interests in the dark days of the past have "gone it alone," and even at that there have been many advances. How much more could and will be accomplished by united effort? These staff meetings should have in mind the medical management of the institution—securing ways and means to better accomplishments, both in medical and surgical condition. At the present time many of these matters are passed upon by a board composed entirely of members of the laity whose qualifications consist mainly of political influence, personal or among friends, charity or a willingness to work. I do not wish to have this statement misconstrued. Too much credit cannot be given to the noble and capable women and men who have given freely of their time and money to make many of our institutions possible and by whose efforts the doors are kept open, but yet whose inexperience in medical matters renders them incompetent to pass upon purely professional conditions. They, too, should direct some attention to the system of nursing, directing and outlining the course of study as it concerns medicine. The record system should be gone over by them. When it is realized that many of our hospitals have been in existence for over twenty-five years and the same record sheet has been in vogue all these years. To some this fact may signify the excellence of the system, to others the lack of interest shown in a matter of great import. The value of these records to the profession is in direct ratio to the final results, the nearer the real story they tell, the more valuable they are. With this idea in mind it seems as though we should make

a keener effort to know the real results of our efforts. When a patient leaves the institution, we frequently feel that a cure has been effected—but when one considers that the patient has been under observation for but a few weeks, one cannot help but feel that the final results really are not known. We believe that each case should be followed up, that the patients should be expected to report back to the institution in one or two months or as frequently as is necessary until some definite idea is gained as to the real results obtained from our treatment and that our records should not be completed until such knowledge is gained. The reports of the various departments of the hospitals should be made at their meetings, the class of cases admitted, discussed. Too often we grow careless as to the cases admitted; just as frequently to the length of time patients are permitted to remain. Our old, chronic cases are permitted to remain as decorations to the ravages of disease until they are a fixture. Again we listen to the powerful political or social voice and the patient remains on and on with no hope of cure, increasing the hospital expense, keeping some worthy acute case from admittance and in the end increasing the mortality rate. Diagnostic conferences by the staff in the various departments seems to us to be one of the best ways in promoting medical art, showing the importance and value of the proper taking of histories, the proper "team work" in arriving at a diagnostic conclusion, the value of laboratory findings in support of clinical diagnosis. For example, one or two surgical or medical cases may be brought before the members present, the case history presented, the reports of the laboratory examinations, X-ray reports shown, differential clinical diagnosis suggested, and, finally, the examination of the patient, and when the case is removed a careful discussion of the conditions is made, and a diagnostic conclusion is arrived at. Later, if active surgical treatment is carried out, these diagnostic conclusions may be verified. I ask you in all honesty, Would not this be a great help to us all? Again, at these staff meetings the final reports of cases should be made and the results of treatment discussed. Too often we as members of hospital staffs do not show the proper interest in our morbidity, we too often feel that a death means a blot on our escutcheons. While this may be true, often the reverse is the case and a death means better surgery and better medicine in an honest effort to promote radical cures. In this way it seems our records may

be of greater value to us and to the professional community, when one realizes that this great State of Pennsylvania has taken cognizance through its Medical Council of the value of the hospital in training the recent graduates in medicine in the practical methods, in reality making all hospitals a unit in the system of medical instruction and each member of the staff a medical instructor, one should be impressed with his sense of duty and the realization of his responsibility. The necessities of such responsibility are so manifest that it seems to us as though each and all of us have our work cut out. Heretofore we have found no necessity, except that of our own ambition, but if our hospitals are to be served by conscientious, painstaking recent graduates as internes, it becomes an obligation to see to it that we are abreast of the times, keeping in mind always that after all it is team work which counts and that no man is bigger than the course he represents.

PERIODONTAL SEPTIC FOCI.—Dr. T. Sydney Smith (*California State Jour. of Med.*, September, 1916) concludes from his observations and analytic study of the literature that: 1. Periodontal diseases are so common that we rarely find an adult person who has absolutely healthy gums. These diseases develop so insidiously, however, that their presence is usually not detected until they have reached an advanced stage. 2. Periodontal diseases apparently are the result of some pathogenic microbic infection which begins in the gingival sulcus; but these organisms require a traumatic condition to provide them with the path of entry. The traumatism is usually the result of purely local causes. Systemic conditions, however, may exert a slight contributory influence. 3. It has not yet been proven that any one organism is the specific cause of periodontal lesions; on the contrary, the appearance of the lesions suggests that they may be caused by different organisms. 4. Endamebae are usually found in periodontal lesions, but the majority of investigators believe that they are harmless, secondary invaders of the pockets. 5. Periodontal septic foci endanger the health of the body because they contain several strains of pathogenic organisms having highly differentiated elective localization properties, and the organisms can readily enter into the circulation from these foci. 6. Correct prophylactic care will always prevent periodontal diseases. 7. Periodontal diseases are not cured unless the pyorrheal pockets have been completely obliterated. It has been found that the separated tissues will form a vital reattachment to the roots of living teeth and obliterate these pockets if aided by proper surgery. 8. This reunion of the tissues cannot be brought about by antiseptic and endamebacidal agents and if they are used as an aid to surgery they impair the tissues and prevent rapid healing.

CLINICS OF THE HAHNEMANN MEDICAL COLLEGE AND HOSPITAL
OF PHILADELPHIA.

DERMATOLOGICAL CLINIC

Conducted By RALPH BERNSTEIN, M. D.

Professor of Dermatology

ECZEMA PAPULOSUM.

Diagnostic Features of Papular Eczema: Its Differentiation from
Seborrheic Dermatitis and Scabies. The Local,
Constitutional and Homoeopathic Treatment.

WE have for our consideration to-day the patient who is before you—a girl ten years of age with a troublesome skin affection. Upon elicitation you acquaint yourselves with the following history:

1. Annoyance—itching—constant.
2. Duration—one year.
3. Location—flexor surfaces of the forearms, in between the fingers and on the face.
4. Types of lesions—papules, surmounted here and there with hemorrhagic points, and excoriations. Papules are in close aggregation in patches which fade away into the surrounding skin.

Having the necessary information upon which to base logical dermatological reasoning, let us proceed to decide upon a diagnosis.

First of all, you have decided that the dermatose in question is an itching one; therefore you naturally think only of itching dermatoses and immediately discard those which are without sensation or which are of a painful character.

Therefore, of the more common itching skin diseases you naturally think of eczema, or perhaps scabies, or seborrheic dermatitis, which are three of the more common itching skin diseases.

You have also noted that the itching is constant. You are, therefore, almost ready to eliminate scabies because the itching is worse at night, and also seborrheic dermatitis because the itching is always worse when warm or overheated.

When you consider the fact of duration your reasoning tends to assist you in further favoring an elimination of scabies because scabies would hardly be in existence for as long as a year because the patient would in that time tend

to seek relief from the intense itching, and upon proper treatment would immediately receive benefit therefrom, and in the course of a week or two the scabies or the itch would be eliminated.

The fact of the duration of a year, however, does not assist us in eliminating seborrhoeic dermatitis because that is a long duration skin disease, and unless properly diagnosed and treated would still be apt to be in continuance; so that on the question of duration of time we have been merely enabled to eliminate scabies.

The location you have determined was upon the face and flexor surfaces of the forearms and in between the fingers. We can eliminate scabies from the viewpoint of location upon the face for the reason that scabies never appears upon the face except in nursing infants who contract it while nursing from the mother's breast.

Location again does not assist us in discriminating between seborrhoeic dermatitis and eczema because both of these diseases may have similar locations. We can, however, begin to eliminate seborrhoeic dermatitis because patients who have this disease usually show evidences of seborrhoeic dermatitis upon the scalp as well as other sites of predilection, namely, upon the chest, on the back in between the shoulders, under the armpits and in the pubic regions, which this patient does not have.

Therefore, let us next consider the types of lesions. The lesions in this case are purely papular and in patches, which you will remember fade away into the surrounding tissue.

We can again eliminate scabies because the lesions in scabies are not in patches, but are disseminated and as well appear upon the typical sites of predilection, namely, in between the fingers, flexor surfaces of the wrists, the elbows, the anterior axillary folds, upon the body and lower limbs generally, and as well upon the penis in the male and the breasts in the female, which, upon close inspection, we do not find to be the case in this patient.

On inspecting the lesions we can safely eliminate seborrhoeic dermatitis because, while the lesions in seborrhoeic dermatitis may be papular and in patches, they are surmounted with fine, dirty, yellowish, greasy scales, which we do not find here.

Again, the patches of seborrhoeic dermatitis do not fade away into the surrounding tissue, but are sharply defined.

Therefore, there is nothing left for us to do but to decide upon a diagnosis of eczema papulosum and to capitulate for the following reasons:

1. The lesions are situated upon typical sites of predilection for eczema.

2. Subjective symptoms are those of intense itching, which is constant.

3. The lesions are papular and are aggregated in patches which fade away into the surrounding tissue.

4. Duration of a year or more.

Now that we have made the diagnosis we are ready to consider the question of treatment.

In determining the local treatment of skin diseases, you will first decide whether the skin disease is micro-organic or non-micro-organic.

You immediately decide that since it is an eczema it is non-micro-organic in character, and this is absolutely essential in your local treatment because an error here would frustrate your treatment entirely, for if you had decided that the disease was either scabies or seborrhoeic dermatitis, both of which are micro-organic, you would have to use a parasiticide to annihilate the micro-organisms at work; so you see what a terrible error you would make in applying a parasiticide to an eczema, because you would immediately aggravate and intensify the existing condition.

You will remember that all non-micro-organic skin diseases are to be soothed and put into a state of quiescence. You may in this case use either calamine lotion or unguentum bismuth subnitratus.

You would hardly favor calamine lotion in this case because of its intense drying qualities. The condition is now already dry enough, as you note there is no exudation or moisture, which is always the case in the vesicular types of eczema.

This being purely papular, it would be better to use the unguentum bismuth subnitratus, being made up of one-half drachm each of bismuth subnitrate, zinc oxide, boric acid and starch, to one ounce of petrolatum; not forgetting that the patient must have immediate relief from the intense itching, because that is one of the important reasons why she came for treatment.

Therefore, you had better add one-half of one per cent. of phenol, and in a chronic case it is well to alternate the

anti-pruritic. After having used the phenol for a few days it is wise to change to one-half of one per cent. of menthol, remembering that menthol controls the intense itching by producing a different sensation, namely, that of cooling, whereas phenol acts by anæsthetizing the superficial nerve endings.

This ointment is to be kept constantly applied, merely gently rubbed in, and changing the application three or four times daily, or as often as is necessary to control the intense itching.

Do not fail to acquaint your patient with the fact that soap and water is absolutely an irritant to this condition as well as to all acutely inflamed skin diseases.

Now, with reference to diet—eliminate all the carbohydrates, particularly advising your patient to avoid eating pies, cakes, candies, pastry, starches, chocolate nut sundaes and the like, of which they are usually particularly fond.

Direct the patient to take a glass of lemonade one day, with very little, if any, sugar; a glass of grape-juice diluted one-half with carbonated water the next day; and the third day a glass of sweet cider. In this way you will be giving your patient three important fruit acids which are quite beneficial, namely, citric acid from the lemonade, tartaric acid from the grape juice, and malic acid from the cider.

Combat the existing constipation and as well eliminate many of the bodily toxins by having the patient drink copiously of soft water, either boiled or distilled, having the patient drink as many as eight or ten glasses a day, as soft water is a powerful dissolvent or eliminant of bodily toxins.

And now, last but not least, let us decide upon the indicated remedy, because this is of the utmost importance in bringing about a cure.

Antimonium crudum (6x) seems to fit in very well because:

Lesions—papular,

Locations—on the face, about the mouth, nose, ears, shoulders and extremities,

Sensations—intense itching, burning and stinging,

Worse—from water, from touch, and while itching is constant in this case it is particularly worse in the afternoon,

Better—in the open air and when at rest,

Associated condition—patient has a white tongue and is apparently suffering from some associated gastric trouble.

MEDICAL WARD CONFERENCE.

(Conducted by G. Harlan Wells, M. D., Clinical Professor of Medicine.)

CASE I.—CHRONIC MYOCARDIAL DEGENERATION: DILATION OF THE HEART.

Gradual Development of Circulatory Failure, Anasarca, Auricular Fibrillation, Stupor. Differentiation of Auricular Fibrillation from Other Forms of Irregularity. Therapeutic Measures Employed and Results.

THE patient that presents himself to us this morning is evidently seriously ill and has been so for several weeks. His family inform me that for some years back the patient has been short of breath and that he has been unable to lie down to sleep for five months. We notice that his legs are so edematous that the skin is broken in many places and ulcerative changes have set in, causing a very foul odor.

Family History.—The family history is good. Father died at eighty years of age; his mother died at seventy-one, causes unknown.

Personal History.—The patient, Mr. K., is sixty-one years of age; American by birth; waiter by occupation. He had mumps and measles during early life and an attack of rheumatic fever at twenty years of age. He was a constant user of alcohol and would occasionally drink to excess.

History of the Present Illness.—About twenty years ago the patient states that he began to have occasional attacks of palpitation. These attacks occurred about three or four times a year and were associated with shortness of breath. The attacks gradually increased in frequency and severity and finally would be brought on by any exertion. About two years ago he noticed a moderate degree of swelling in the lower limbs, which was worse in the evenings and would disappear after rest in bed over night. At this time he was troubled considerably with shortness of breath on exertion and was compelled to give up his work. Since that time the edema and shortness of breath have gradually increased and, for the past five months the legs have been so edematous that the skin broke and infection took place in the edematous tissue. The dyspnoea is now constant and so severe that the patient is unable to lie down. The patient has occasional attacks of palpitation, but no pain

or other subjective symptoms around the heart. When first admitted to the hospital the patient was conscious, but two days ago his pulse became very rapid and irregular and he developed a profound stupor with involuntary urination.

Physical Examination.—The general development of the patient is good. His face presents a worried, wrinkled appearance, probably the result of his long-continued illness. The teeth are in poor condition; the tongue is slightly coated. An examination of the abdomen fails to reveal the evidence of any fluid. The liver is slightly enlarged. Examination of the respiratory system shows slight dullness over the bases of both lungs with diminished breath sounds and a few moist rales.

Circulatory System.—The apex beat of the heart is not visible nor palpable. The area of cardiac dullness extends from the right border of the sternum to a line one inch to the left of the mid-clavicular line. On auscultation, we notice that the sounds of the heart are irregular in their rhythm, with a decided weakness of the valvular sounds. The rate of the radial pulse is as high as 140 per minute at times and is irregular both in rhythm and in force. The systolic blood pressure is one hundred and sixty; diastolic pressure one hundred. There is no palpable sclerosis of any of the superficial arteries.

Lower Extremities.—Both lower extremities are greatly swollen and edematous from the toes to the knees; skin is red and covered with ulcerating areas, which discharge a foul, sero-purulent fluid.

CLINICAL ANALYSIS.

This patient presents a typical history of a case of chronic myocardial degeneration with gradually increasing circulatory failure. The patient's heart was probably damaged by the attack of rheumatic fever at twenty years of age. At forty-one years of age he developed well defined symptoms of cardiac disturbance as evidenced by attacks of palpitation accompanied by shortness of breath. It will be noticed that these attacks were at first infrequent, but that later they increased in severity and in frequency and were brought about by any unusual exertion, such as attempting to climb the stairs or to do any unusual physical work.

About two years ago another characteristic sign of circulatory failure developed, namely, edema of the lower extremities,

which increased after the patient had been walking about during the day and largely disappeared after a night's rest in bed. This edema and the dyspnoea gradually increased until we now have a picture of a fully developed case of circulatory failure with all of its discomforts and distress.

The absence of precordial pain is noteworthy in this case and this, together with the absence of any sclerotic changes in the superficial arteries, would indicate that there were no sclerotic changes in the aorta or in the coronary arteries.

The irregularity of the pulse that we find present at this time is a matter of considerable importance from a diagnostic and therapeutic standpoint. It would be interesting for us to know how long this irregularity has existed. It was present to a moderate degree three weeks ago, but during the past two days has been very decided.

Dr. Wells: Can anyone suggest a probable explanation for this irregularity?

First Student: It might be a sinus irregularity.

Dr. Wells: Are sinus irregularities common in adults?

Second Student: No; sinus irregularities most frequently occur in children.

Dr. Wells: What are the most common forms of irregularity of the pulse found in adults?

Second Student: Premature contractions and auricular fibrillation.

Dr. Wells: That is correct.

About seventy per cent. of the irregularities of the pulse found in ambulant patients are due to premature contractions. On the other hand, about seventy per cent. of the irregularities found in patients who are bedridden can be traced to fibrillation of the auricle. The patient now before us presents well marked signs of circulatory failure, so that the chances are three out of four that the irregularity of this pulse is due to auricular fibrillation.

Let us now briefly review the differential diagnosis of the three types of irregularity of the pulse that have been mentioned, namely, *sinus irregularity*, *premature contractions* and *auricular fibrillation*.

Sinus irregularities are recognized most readily by their relation to the respiratory movements. The pulse in this condition will be found to have a dominant rhythm, but the rate of the pulse becomes accelerated during inspiration and slows

during expiration. If we have the patient voluntarily exaggerate his breathing, the variations in the pulse rate during inspiration and expiration will usually be accentuated. Sinus irregularities are rarely associated with any signs of circulatory failure and from a prognostic standpoint may be looked upon as practically harmless. They are due to the action of the pneumo-gastric nerve upon the sino-auricular node of the heart.

Premature Contractions.—In a typical case of this type of irregularity we find a pulse with a dominant rhythm, which is interrupted now and then by a long pause, or by a premature beat which is feebler than the ordinary pulse beat, followed by a long pause. The pulse wave following the pause is usually stronger than a normal pulse wave and the patient may feel this himself and state that his heart gave a “thump.” If we place the stethoscope over the heart we will find that during the pause in the pulse wave, or during the feebler wave of the pulse, two short, sharp clicks occur, showing that the ventricle contracted, even though no wave or only a feeble wave, reached the radial artery. If the pulse rate is accelerated by exercise or by fever, the irregularity due to premature contractions may entirely disappear. Premature contractions may or may not be of serious prognostic import, depending upon the co-existing signs and symptoms that are present. In many instances they are comparatively harmless. Where they are associated with signs of circulatory failure, they are indicative of organic changes in the heart muscle.

Auricular Fibrillation.—This condition is usually readily recognized by observing that the pulse is irregular both in *rhythm* and in *force*. As a rule the rate of the pulse is above 100, and in many instances by placing the stethoscope over the heart we observe that the ventricular contractions are greatly in excess of the waves that are felt at the radial artery. The tracings made by a sphygmograph or a polygraph usually enable us to diagnose this condition very readily. The sphygmomanometer will frequently give us valuable information as to the existence of auricular fibrillation. When the air pressure is applied to the arm we will observe that we cannot state definitely the actual blood pressure. A few pulse waves come through at one hundred and sixty, more come through at one hundred and fifty, still more at one hundred and forty, etc. This constant variation in the pressure of the pulse waves

is strongly suggestive of fibrillation of the auricle. Exertion, fever, or anything that accelerates the pulse exaggerates the irregularity.

Auricular fibrillation is of serious prognostic importance. It indicates serious changes in the heart muscle and if it persists for any length of time, circulatory failure and death are sure to result. On the other hand, the treatment of this condition when recognized within a reasonable time, is one of the most brilliant and successful procedures in modern medicine. So that while the recognition of auricular fibrillation may mean the saving of the patient's life, the failure to recognize it will almost certainly mean his death. When we come to study carefully the condition of the pulse in the case now before us, we observe the decided variations in the force and rhythm of the pulse. We observe that the pulse at times reaches 150 per minute; that there is a distinct deficiency in the radial pulse as compared with the ventricular contractions as heard by the stethoscope; and we note in the pulse tracings the distinct lack of any dominant rhythm. These facts, together with marked evidences of circulatory failure that we find present warrant us in considering the irregularity in this case as being due to auricular fibrillation.

TREATMENT.

In considering the therapeutic management of a case of this type, it is necessary for us;

First, to diminish the work of the heart as much as possible, and,

Second, to control the fibrillation of the auricles.

The first indication we have met by placing the patient in bed. This is absolutely essential to a successful outcome. Before coming to the hospital this patient has been sitting up in a chair and walking around the room as he desires, the result being that, no matter how carefully remedies may have been prescribed, he has made no progress. It is not easy to keep such a patient in bed and we must do everything to add to his comfort by placing pillows behind his back and giving him a good supply of fresh air until we can bring about an improvement in his shortness of breath.

In line with giving rest to the heart, the patient has been placed upon a diet that tends to place but little burden upon

the stomach and that favors elimination through the kidneys. The diet we have used in this case is known as the *Karell diet*, which consists of six ounces of milk at 8 a.m., 12 m., 4 p.m. and 8 p.m. Despite the employment of rest and of the Karell diet for the past two weeks, the patient has grown steadily worse. In order to relieve the dropsical condition, the patient was given sodium acetate of theobromine, five grains every two hours, with no beneficial results. He then received tincture of apocynum, first in five drop doses and later in twenty drop doses every three hours with no improvement. About two days ago, while still under the influence of apocynum, the patient became markedly worse; the pulse became very feeble, decidedly irregular, the rate over one hundred and fifty per minute; respirations thirty-six. The patient became comatose with involuntary stools and urine. Strychnia and other stimulants were given hypodermically with no result. The fibrillation of the auricle became very marked and it seemed as though death was impending.

On October 12th (two days ago) on account of the serious condition of the patient, *digalin* was given hypodermically, one tablet every six hours. Improvement began after the first dose and within twenty-four hours the pulse dropped down to seventy-four per minute. The general condition of the patient also began to improve; his coma gradually disappeared and the urine, which had been down to ten ounces daily, gradually rose to over forty to fifty ounces daily.

FUTURE COURSE.

On October 17th, the hypodermic use of digalin was stopped and the fluid preparation of digalin was given by mouth, fifteen drops every six hours. Two weeks later the digalin was stopped entirely as the patient was well on the way to recovery, with a pulse rate of about seventy to seventy-four per minute and able to be up and around the room. The edema had entirely disappeared. Hyocyanus 3X was prescribed on account of his mental condition which had been abnormal for the past six months.

About November 5th the patient was discharged from the hospital with absolutely no edema. The ulcers on the legs were entirely healed and the pulse was practically normal in rate and rhythm.

It is not to be supposed that this patient is permanently cured. The chronic myocardial degeneration, which gave rise to his recent illness, no doubt still persists and probably will ultimately be the cause of his death. With proper care and rest, and the judicious use of digitalis in times of emergency, however, this patient may be kept in a reasonable degree of health for months or even possibly for a few years.

CASE II.—PNEUMONIA.

An Atypical Case of Pneumonia in a Patient Suffering from Arterio-Sclerosis and Chronic Interstitial Nephritis. Resume of General and Homœopathic Treatment.

This patient is not able to give us any information, but his mild delirium, accompanied by fever and heavily-coated tongue and generally besotted appearance indicate that he is suffering from some severe toxemia. Owing to his delirious condition, our history is somewhat brief; but as I have treated this patient on a previous occasion, I am able to give you the following information:

Family History.—Negative.

Past Personal History.—The patient was in fairly good health until 1915, at which time he began to be bothered with symptoms of prostatic irritation and in November, 1915, the prostate gland was removed in this hospital. He made a slow, but good recovery from the operation and first came under my observation in January, 1916, at which time he was suffering from headaches and dizziness. There were then evidences of arterio-sclerosis, and the urine showed typical findings of chronic interstitial nephritis. The patient gives a history of having had a chancre forty years ago.

History of the Present Illness.—The patient, on the 29th of October, was taken with a short dry cough, with pain in the right side of the chest and right inguinal region, and came to the hospital on October 31st. Shortly after admission he became more or less stuporous with mild delirium and involuntary stools.

Physical Examination.—We observe that the patient is unconscious, that his face is markedly cyanosed. The temperature varies from 99 to 101; respirations, 36; the tongue has a heavy yellowish-brown coating; lips are dry and parched; the odor of the breath is foul. Examination of the heart shows

the apex beat to be just outside of the mid-clavicular line. The area of cardiac dullness is enlarged one inch to the left. The first sound of the heart at the apex is weak; the arteries, especially the femoral, are sclerotic; blood pressure one hundred and sixty-five systolic and one hundred and five diastolic.

Respiratory System.—There is a limited motion on the right side of the chest and dullness over the lower half of the right lower lobe, extending laterally as far around as the posterior axillary line. Crepitant rales are heard over the lower half of the right lower lobe with diminished breath sounds over the same area.

Blood Examination.—White cells, 13,500; red cells, 5,480,000; hemoglobin, 90 per cent.

Urine Analysis.—Quantity diminished; albumin present in moderate amount; hyaline and granular casts present.

CLINICAL ANALYSIS.

It is evident that we have to deal in this case with some form of pneumonia. In what respects does it differ from a typical case of lobar pneumonia?

First Student: The temperature (99° to 101°) and pulse rate (88) are both low for lobar pneumonia.

Second Student: The leucocyte count, 13,200, is rather low for pneumonia.

Dr. Wells: All of these points are well taken, especially as the degree of toxemia is such as would seem to warrant a much higher temperature and pulse rates than we find present. It is also rather unusual to find only a portion of a lobe involved in a typical lobar pneumonia. We must bear in mind, however, that this man is seventy years of age, is an old syphilitic, and has suffered from chronic interstitial nephritis for some years back. In such cases atypical forms of pneumonia are very common. In patients of this type it is common to find a comparatively low temperature range. In fact, the temperature may never rise above normal. Instead of being a favorable indication, however, a normal temperature in a patient suffering from pneumonia is a very grave sign. I have never known a case presenting this phenomenon to recover. Again, pneumonia in asthenic cases is frequently of gradual onset, the cough and expectoration are frequently slight, while the toxic symptoms such as delirium, coma, prostration and

foul condition of the mouth may be very marked. Naturally, the prognosis in this case must be considered very grave.

TREATMENT AND FUTURE COURSE.

On account of the hard, dry cough, thirst and dry condition of the mouth, bryonia 2X was prescribed. The patient also received daily per rectum about two pints of a solution containing $7\frac{1}{2}$ grains of phenol to the pint of water by the Murphy drip method. On account of some evidence of renal irritation the phenol solution was later changed to normal salt solution. The cough, fever and local signs in the chest were improved by this treatment. The toxic state, however, seemed to grow worse and because of his delirium hyoscyamus was prescribed without benefit.

Three days later baptisia 6x was prescribed on account of the besotted appearance of the patient's face; the foul odor of the breath; the dark coating of the tongue and general toxic state. Under the action of this remedy the patient showed prompt marked improvement and is now convalescent. I believe that the recovery in this apparently hopeless case was due to the maintenance of good elimination by means of the normal salt solution and to the favorable action of the homoeopathic remedies prescribed. No stimulation of any kind was employed.

RELATION OF VENEREAL DISEASES TO THE PUBLIC HEALTH.

BY

FRANCOIS LOUIS HUGHES, M.D., PHILADELPHIA.

1425 West Girard Avenue Philadelphia, Pa.

Gynaecologist to St. Luke's Hospital, Women's Homeopathic Hospital of Philadelphia, and Abington Memorial Hospital, Abington, Pa.

Read Before the Medical Inspector's Association, Philadelphia, Bureau of Health, and the Oxford Medical Club.

THE subject of my paper is one which, up to a very recent time, the health authorities, both Federal, State and local have left absolutely alone, either from a sense of fear, modesty or pure carelessness. From the Federal health authorities down to the smallest local health board their actions have been most illogical.

We have passed through a popular wave of eugenics, the

social evil, etc., where the populace were educated up to a certain point in reference to venereal diseases, yet the basic principle was left untouched.

How illogical it seems when our Federal Government in its immigration laws states: "In addition, idiots, imbeciles, feeble-minded persons, epileptics and insane persons, persons afflicted with tuberculosis or with a loathsome or dangerous disease are excluded from admission to the country. Under loathsome contagious disease are specified—favus, ringworm, actinomycosis, yaws, madura foot, leprosy, gonorrhoea, soft chancre, and any case of demonstrable syphilis in active communicable stage."

The certifying that an alien is suffering with any of the diseases contemplated in the law, his deportation becomes mandatory; not only may the diseased alien be deported upon his or her arrival, but any time within three years, if shown they are suffering with a loathsome, contagious or dangerous disease which existed prior to landing.

Now does it not seem that if a person suffering from a venereal disease is an undesirable to admit into the country, the laws of the country should in some manner continue to supervise these same diseases? If an alien comes to our shores with venereal disease, it is against the laws of our country to admit him, but he or any other resident may contract or spread the disease without any particular effort on the part of the health authorities to control the same; yet every other disease mentioned by the immigrant laws are reportable, and kept under supervision and quarantine by health authorities all over the country.

Do you realize that in our country's laws we have a precedent of a case of knowingly transmitting venereal disease, that is a disgrace to the State in which it occurred?

INFECTION WITH GONORRHOEA NOT AN INDICTABLE OFFENSE.

Texas: Under statutory provisions prescribing a penalty for wilfully and knowingly importing into the State or into any country any infectious disease, or for inoculating for infectious diseases after they may have been introduced, except as provided by law, an indictment that the defendant, having an infectious disease known as gonorrhoea, did wilfully, knowingly and unlawfully inoculate a certain person by means of sexual

intercourse, charges no offense. (*Austin v. State*, 56 So. Rep. 345.)

If our laws governing venereal diseases were more specific in their phraseology, such verdicts would be impossible. Iowa and Oklahoma have since passed laws that penalize the wilful communication of either syphilis or gonorrhoea.

The Pennsylvania Act, approved the 28th of May, A. D. 1915, is a step in the right direction, and the State now joins Arkansas, Mississippi and Rhode Island in forbidding the employment of any person or persons in food establishments suffering from any contagious, infectious or venereal disease.

In the majority of the States the requirements are that food establishments shall be properly lighted, drained, plumbed, ventilated and conducted with regard to the purity of the food and health of the employes, yet no specific mention is made of venereal disease.

The enforcement of these laws and the provisions to finance the various acts are in some instances vague and contradictory, leaving various loop holes through which the offender may escape, and in most instances the laws are carried out only half-heartedly.

California, Indiana, Kansas, Louisiana, New Hampshire, New Jersey and Oklahoma put the interpretation and enforcement of the law under the State and local health authorities; Missouri and Tennessee, under both health and food authorities, and Colorado, Connecticut, Illinois, Iowa, Minnesota, Nebraska, North Dakota, Ohio, Nevada, Wyoming, under the food authorities.

A beginning has been made in various States to prevent the spread of venereal diseases. In only five States is the notification of such diseases required by law, although in one territory cases of cutaneous syphilis are to be reported, and in two States reports of both syphilis and gonorrhoea are required by regulation of the State Board of Health. In one State—Vermont—the State Board of Health is required to provide, at the expense of the State, free laboratory diagnoses of both syphilis and gonorrhoea; free vaccine treatment of gonorrhoea, and the treatment of syphilis at cost, together with the circulation of educational literature.

In one State the law specifies that venereal patients must be furnished treatment; prisoners with syphilis must be isolated, and their retention in prison until cured is required in two States.

In seven States the marriage of persons with communicable venereal disease is prohibited, and in Iowa the sterilization of syphilitic patients in public institutions is required.

In various States a certificate showing the freedom from communicable venereal disease is required before the issue of a marriage license. Dissemination of information relative to these diseases or to remedies therefor is forbidden in Massachusetts, Minnesota, Ohio and Oregon.

Employment of janitors in schools or of teachers suffering from these diseases is forbidden in Indiana, and in West Virginia pupils suffering from venereal disease are prohibited by law from attending school. Connecticut and Tennessee have laws containing provisos exempting venereal disease from being considered communicable, and therefore subject to the control of the health authorities. In West Virginia the law governing hotels does not apply to houses charging \$1.50 or less per day; to hotels having ten rooms or less, and to summer hotels. How illogical! We can readily see that infectious, contagious and venereal diseases cannot be transmitted by the patrons that are only able to pay \$1.50 per day, or that only use hotels in the summer time.

Minnesota in 1897 was the first State to enact a law with a view to regulate the sanitary conditions in barber shops. Eighteen other States have passed similar laws. In Kentucky and Nebraska these laws were repealed after a short period of operation. In Missouri the law only applies to cities having 5,000 inhabitants or over, and in Delaware it applies only to the largest city in the State.

In sixteen States the enforcement of these laws are placed in the hands of the State Barbers' Board, but in Kansas and Missouri the State Board of Health is to pass on the qualifications of the members of the Barbers' Board. In Porto Rico, Connecticut and New Hampshire the health authorities are empowered to enforce the provisions of the Act. In Kansas, Arkansas, District of Columbia, Louisiana and South Dakota, the exercise of the trade is forbidden by regulations to persons with any contagious, infectious or communicable venereal disease.

After giving you a *potpouri* of the law in various States you can realize the chaos in which this subject is at the present time. The entire handling is illogical. The laws of the various States should be uniform and enforced to their utmost, even if it would be necessary to make the act one of Federal import.

We know how hard it is to trace the source of infection in the various reportable diseases, yet in gonorrhoea and syphilis we have two diseases that make the source of infection a comparatively easy one to find, and under proper health laws and rules no doubt would be easy to control.

Every case of gonorrhoea and syphilis should be reported and kept under surveillance until cured. These cases should be treated from a health standpoint, with no more compunction than we now handle diphtheria and scarlet fever. In no class of disease is the hygienist's adage more apt—*"It takes a sick person to make a well person sick."*

The first step should be to place a ban on all proprietary articles sold for the so-called cure of these diseases, and to make the druggist liable to fine and imprisonment if he prescribes over his counter any internal or external remedy for these diseases. Personally, I believe that this law is needed as badly as we needed the Harrison Act.

We can readily understand the position of a young man who may contract either of these diseases. He probably is only earning from five to ten dollars a week; he is unable to go to a reputable physician, due to his financial position, and as a result his friend tells him about "Smith," the druggist, who has a fine injection for gonorrhoea, or pills if it be syphilis. He visits the druggist, who only too willingly mixes up some medicine, without regard to the requirements of the individual case, charging him fifty cents or a dollar. The patient has medicine for a week; this continues until the case goes into the subacute stage, if it be gonorrhoea, or the healing of his chancre, if it be syphilis. This man, in 90 per cent. of the cases, stops treatment and becomes a menace to the public health.

If stringent laws were passed and enforced the druggist would be afraid to prescribe for these cases, and the patient would be forced to visit a physician or dispensary for his treatment and instruction.

In passing I might add that a crying need in Philadelphia to-day is for a clinic, open in the evening, for these cases. If treated by a physician, or the dispensary, these cases would be reported; from certain occupations they would be excluded, and if the instructions were not carried out, they should be interned in a hospital with as little compunction as a case of small-pox.

As gynaecologist in three hospitals I can safely say that over

60 per cent. of the cases operated upon by me are the end results of these diseases. The taking of the histories of these cases are enough to make your blood boil; a healthy girl who marries—then the usual run of symptoms, ending in a physical wreck on the operating table, the unsexing by removal of the tubes and ovaries.

It is safe to say that if every man contracting gonorrhoea ran the same chances that a woman runs, that is—losing his testicles, our legislators would fall over themselves to pass the necessary laws, with proper appropriations, to save their testicles and those of their constituents; but as it only affects their mothers, daughters, sisters and wives, why worry? Do you really think that this subject has ever been placed before them in such a way that they realize its importance? I myself do not think so. If I did, my opinion of the makers of our laws would not be fit to utter.

Since I was asked to write this paper, I have had my assistants in the dispensaries examine every woman for gonorrhoea that applied for treatment, irrespective of her complaint. I am sorry to say that in over 18 per cent. the gonococci was discovered under the microscope. Less than two per cent. gave acute symptoms of the disease.

Where it was possible, and I am sorry to say that it was in only a few cases, husbands were examined, and in every case we either found the history of past attacks, some apparently cured, and in others the presence of the bacteria was found either in the urine or upon milking the seminal vesicles and posterior urethra.

Was there ever a better plea for Woman Suffrage?

If the womanhood of this country is to be protected, it behooves us to take steps to stamp out these diseases even if it were necessary for the health department to come to the rescue with a clinic held at such hours that workmen and women could be treated without loss of time. With syphilis it is doubly important. The time necessary for a cure, and the expense, makes many a man and woman careless, with the resulting tertiary symptoms, the usual crop of individuals who become burdens to the State; the children of these parents starting life with this blight, and the resulting supply to our homes for feeble minded.

In closing, I must mention another end result of gonorrhoea, that of ophthalmia neonatorum. Time being limited, and this

subject big enough for a paper in itself, I wish only to again emphasize the illogical methods of our law makers.

Ophthalmia neonatorum legislative action has been taken in 25 States, varying from just reporting the disease, to the compulsory use of the prophylaxis.

The economic factor of this disease is marked when statistics reveal that from 25 per cent. to 40 per cent. of all blindness is from this cause. Out of 351 admissions to blind schools in the United States and Canada in 1910, 23.9 per cent. were due to this cause.

The exercise of all trades and professions depend upon good eyesight, and the importance of this disease as an economic factor becomes apparent. These children, as a rule, become dependents upon the community, their education is more expensive, and instead of being useful members of the community, they become a permanent charge.

Pennsylvania in 1909 appropriated \$265,000 for the care of the blind. Did she appropriate 265 cents to prevent the cause of ophthalmia? We as physicians are taught to treat the cause not the effect.

Compulsory treatment of the eyes of all new born infants should be enforced by law, and on the birth certificate the physician should be compelled to certify that he has taken prophylactic measures. New York has this statement incorporated in the body of their birth certificates.

Time does not allow me to go as deep into this subject as I wish, and I only hope that my poor efforts to-night may start a movement here in Philadelphia for the control of these diseases. Let us be first and not wait until other communities show us the way.

This subject is one that has been rankling in my system for the past ten years, and in the slang phrase, I thank you for this opportunity to "get it off my chest."

EDITORIAL

THE PHYSICIAN'S APPEARANCE FROM A LAYMAN'S VIEWPOINT.

It is an old saying that "clothes do not make the man," but it is equally true that the impression a patient gets from the doctor's appearance has a great deal to do with the opinion he forms of the doctor. Physicians, and especially those who are engaged in the general practice of medicine or those who are completely absorbed in the scientific aspect of medical work, are too prone to overlook this fact. It is useless for the physician to attempt to explain his carelessness in dress and appearance on the ground that it does not matter what he looks like as long as he is competent from a scientific standpoint, for, in many instances at least, the unfavorable impression created by carelessness in personal appearance deprives the physician of any opportunity to demonstrate his scientific abilities. Nor can we dismiss the matter by saying that such discrimination is unfair, for who would have any great confidence in the "surgical cleanliness" and "aseptic technique" of an operator if his unshaven face and dirty hands proclaim his neglect of even the most simple hygienic procedures?

Apropos of this subject, we have before us a communication recently received from a very influential and enthusiastic supporter of homœopathy, referring to the fact that "the criticism is often made that the homœopathic physician is not as neat and tidy in his appearance as he should be. . . . It is a small matter perhaps, but really is of great importance, as untidiness in his personal appearance reflects certainly on the man himself and on his school of medicine."

The writer then refers to a specific instance and describes a physician's visit in the following terms: "He arrived this morning unshaved, hair on end and badly in need of a cutting; with hands and linen none too clean. If I were not an ardent homœopath it would almost make me decide not to employ a man of such unsanitary appearance." The writer concludes by expressing keen interest in the welfare of the homœopathic school and by stating that the letter was written with the view of being helpful and not in a critical spirit.

We are all, unfortunately familiar with the type of physi-

cian described in the letter. It is only fair to say that men of this type are by no means confined to the homœopathic school. In fact, it has been a matter of general observation that the appearance of the body of physicians in attendance at our State and National Societies is, as a rule, all that could be desired and would stand a favorable comparison with any other group of medical men. All those, however, who are desirous that homœopathic physicians should stand for *everything that is best in medicine* will admit that this communication contains a truth that we can all take to heart. In the practice of medicine there is no denying the fact that "cleanliness is next to godliness," and no matter how competent a man may be, the feeling of confidence and satisfaction in those he attends, will be greatly increased by a cleanly and tidy appearance. A few dollars judiciously invested in this direction will bring infinitely greater returns than a similar amount invested in the visionary speculations to which medical men are said to be especially prone.

G. H. W.

HOMŒOPATHIC PROPAGANDISM.

THE officers of our National and State homœopathic medical societies have, during the last few years, very properly given considerable thought to the problem of spreading the tenets of homœopathy among the laity and among the physicians of other schools of practice. Considerable money has been raised and spent with this purpose in view and some of it no doubt with good effect.

We were favorably impressed with the very practical form of homœopathic propagandism in the form of a commercial advertisement of a work entitled "The Elements of Homœopathic Theory, Practice, Materia Medica and Pharmacy," recently inserted by our oldest homœopathic publishing house in a prominent old school journal. We do not doubt that such an advertisement will prove profitable to the publishers; we believe that it will be advantageous to physicians of the old school who will purchase this book, and we feel satisfied that it will prove a very practical method of homœopathic propagandism.

A few decades ago a considerable number of new adherents to homœopathy were won from the dominant school of medicine by placing in the hands of old school physicians,

works of this character, and we believe that similar results will follow to-day. The medical therapeutics of the dominant school is far from satisfactory to its adherents and the time is ripe for homœopathic principles and methods to be brought forcibly to their attention. We congratulate the publishers on their effort in this direction and feel that their work along these lines should receive the hearty endorsement of the entire homœopathic profession.

G. H. W.

A PROVING OF CRATEGUS.

WE have recently received from Dr. Albert E. Hinsdale, the wide-awake Professor of Materia Medica in the College of Homœopathic Medicine of the Ohio State University, a reprint of a proving of crategus recently conducted in the Research Laboratory of the Ohio State University. The proving was conducted with scrupulous care and the fund of five hundred dollars was provided for the purpose by Dr. Thos. McCann, of Dayton, Ohio.

It is not our purpose at this time to give a detailed statement of the results of the proving, but to compliment Dr. Hinsdale on the scientific care with which the proving was conducted and the practical manner in which the results of the proving have been presented to the profession. We have had the opportunity of reviewing a few provings that have been made in recent years and in some instances have found a bewildering mass of detail that abounded in scientific jargon, but which gave absolutely no hint or suggestion that would be of any practical value to physicians of the homœopathic school or of any other school of practice. These reports frequently conclude with the statement that "No definite conclusion was reached, but the writer feels that this will be a fruitful field for further investigation." Such provings may be very satisfactory to those whose mental make-up is such that they delight in intricate minutæ and in the piling up of "words, words, words," but the practical physicians of the homœopathic school have a right to demand that the results of provings be stated in language that is simple, concise and capable of practical application. We trust Dr. Hinsdale will continue his good work and that others will be stimulated to follow his example.

G. H. W.

GLEANINGS

THE SCHICK TEST.—G. H. Weaver and B. Rappaport, Chicago, report their experiment with the Schick reaction during the past year. A slight modification of the technic is described. "The skin on the outer side of the arm is rendered tense by clasping the arm from behind. The needle is first thrust into the skin at right angles to the surface to a depth of about one-eighth inch. The direction of the needle is then changed, so that if it were carried forward it would emerge about one-half inch from the point of entrance. The needle is then carried forward in this direction until the point is plainly visible within the epidermis. The injection is then made and the needle withdrawn." The advantages over the old technic are less pain, less time required, and prevention of danger of escape of fluid. Dilutions of toxin were prepared at intervals of from four to six weeks and kept in tightly sealed bottles. One hundred ninety-four healthy young adults were tested, over half of whom gave negative results. They included nurses and medical students of the senior classes, and have not specially come in contact with diphtheria in the first three groups. Group 5 included older persons who have been more exposed. The increasing number of immunes with increasing age was probably due to immunity from mild and perhaps often unrecognized attacks. The proportion of immune carriers is probably increasing. The authors found the test of much diagnostic value in carriers sick from other anginas. Antitoxin given intramuscularly before or with the toxin completely inhibits reaction. Tests were made in sixty-six cases of scarlet fever and the results shown in tabulated form, as were also the results in patients with tonsilitis.—(*J. A. M. A.*)

FRACTURES IN CHILDREN.—J. Grossman, *New York. Medical Record*, July 8, 1916.—In treating fractures in children and infants one must always bear in mind the tender skin of the infant, its round agile body; and the movable cover of fat which envelopes the soft bones.

The tendency to heal is much more intense in children than in adults, the time of union is much shorter, and immobilization should be of shorter duration.

A certain percentage of fractures in children do exist with the cardinal signs of fracture lacking, the diagnosis being made in these cases by tracing the point or line of pencil or maximum bone tenderness.

Where following an injury children refuse for any length of time to use a limb, especially if their attention is distracted from the injury, or when they are at play, bear in mind the possibility of a fracture.

One must always bear in mind the necessity of proper retention, as it is just as important as proper reduction in securing favorable results.

Early massage, passive and active movements are very important adjuncts in securing satisfactory results.

SEQUELAE OF ORAL FOCI OF INFECTION.—Dr. C. D. Lucas (*Jour. Indiana State Med. Assoc.*, September, 1916) says that while conservation of teeth is the great mission of the dentist, health conservation of his patients is his first duty. For this reason all infection of the oral cavity must be located and removed. This does not mean tooth extraction in each case of focal infection, but rather the eradication of the cause by treatment of abscesses, oral surgery, resection of denuded, pitted and infected apical cementum and mechanical planing, or scaling of the precipitation from the cementum of tooth roots in pyorrhea. If a diseased tooth cannot be cured it should be extracted, the socket thoroughly curetted, irrigated with saline solution and sponged out with 10 per cent. iodine. Pulp canal treatment and filling have greatly improved. Each tooth that is to be, or has been devitalized must be radiographed, in order to determine whether a focus of infection is present or not, and the treatment is to be based upon the x-ray diagnosis.

BLOOD PRESSURE IN PREGNANCY.—From a study of 5,000 consecutive cases in the pregnancy clinic of the Boston Lying-In Hospital, F. C. Irving, Boston, has endeavored to ascertain: (1) the normal range of blood pressure in pregnancy; (2) the significance of low blood pressure; (3) the significance of high blood pressure, particularly as regards the toxemias of pregnancy, and (4) to state certain results obtained in the prevention of eclampsia by the appropriate treatment of these toxemias. From this study, he deduces conclusions substantially as follows: In 80 per cent. of pregnant women the blood pressure ranges from 100 to 130, and in 9 per cent. the blood pressure may be below 100 once or more. When below 90 it does not mean that the patient will have shock unaccompanied by hemorrhage of confinement. In 11 per cent. it may be above 130 once or more. This seems to be influenced somewhat by age, nationality, and parity. High blood pressure is more frequently a sign of toxemia in the young than in those over 30. Elevated blood pressure is more often an index of toxemia than albuminuria and is apt to be an earlier sign. The degree of elevation indicates more surely the likelihood of toxemia than does the amount of albumin, but both are of the utmost importance. Isolated cases of high blood pressure without albuminuria or toxemia were not infrequent, but usually responded to free catharsis. Some pressures remained high in spite of treatment, and were apparently normal during pregnancy, at least for the patient who exhibited them.

A progressively rising blood pressure often from a low level, even though it never reaches the arbitrary danger point, should be taken with apprehension as a most valuable sign of approaching toxemia. Toxemia is much more common with the blood pressure above 150 than below that point, and most patients with eclampsia had a pressure of 160 or more. It may occur, however, with only moderate pressure. All toxemia cases develop both albuminuria and high blood pressure. The incidence of eclampsia in this series was only slightly smaller than the usual figure, but Irving thinks that in two-thirds of the cases it was due to neglected advice. If his patients had been discharged for disobeying instruction the statistics would have been much more favorable, but it was considered that it would be unjust to the ignorant foreigners who constitute the majority of the patients to abandon them when they most needed care.

PSEUDO-APPENDICITIS.—F. G. Connell, *Oshkosh. Journal American Medical Association*, July 29, 1916.—Connell says that the question of acute appendicitis is settled, at least for the time being. The method and time of treatment and postoperative measures are practically uniform; delay in proper treatment is usually due to uncertainty in diagnosis and the inexcusable estimated general hospital mortality of 10 per cent. is due to the failure of some one to recognize the well accepted principles of surgical diagnosis or treatment. The problem of chronic appendicitis calls for attention, not on account of high mortality rate, but of a more disconcerting morbidity rate—the postoperative persistence of symptoms. When a patient complains of the same symptoms after appendectomy as before operation, we may reasonably believe that they were not due to the appendix and that the diagnosis was incorrect. He divides these cases into two classes: those in which the proper diagnoses have been subsequently obtained and those in which the persistence of the symptoms has not been rationally explained, and which might be well called pseudo-appendicitis. Between January, 1909, and January, 1916, he has found eighty-seven records in which the removal of the appendix or the interval operation for appendicitis had not been followed by relief of symptoms. Forty-eight of these were operations of his own. During the same time there were 212 patients operated on, all told, for chronic appendicitis. He gives a detailed review of these cases, not as case reports, but analyzed according to the histories and symptoms, the findings and results. In his conclusions, he says that after eliminating all demonstrable pathologic conditions that might possibly be confused with chronic appendicitis, there remains in certain cases some cause for pain and in the right iliac fossa other than the appendix, the exact nature of which is not definitely known. Such cases are frequently associated with visceral ptosis, constipation and neurasthenia. Appendicitis, either acute or chronic or when there has been an unquestioned inflammation, calls for surgery, but pseudo-appendicitis, on the other hand, is a nonsurgical condition, hence the need of a differentiation between these conditions. Every case of so-called chronic appendicitis that is associated with enteroptosis, constipation and symptoms of nervous instability should be looked on as pseudo-appendicitis, until careful and painstaking study of the history and clinical findings prove it otherwise. The advisability of seeing the patient in one of these attacks is pointed out. While an entirely satisfactory explanation of this type has not yet been found, study suggests that a lack of balance between the vagus and sympathetic divisions of the autonomic nervous system may be an etiologic factor, and this in turn may be due to an abnormal function of some of the endocrine glands.—(*Amer. Jour. of Surgery.*)

THE TREATMENT OF NON-TUBERCULOUS BRONCHIECTASIS.—Howard Lilienthal, *New York. Annals of Surgery*, July, 1916.—In discussing etiology, the post-operative bronchiectasis following tonsillectomy and the removal of adenoids under general anesthesia, especially in adults, is given prominent mention. Eight cases of this sort have been reported by Wessler as coming under his notice within a few months. Indeed, 28 per cent. of all lung suppurations coming to the Radiographic Department of Mt. Sinai Hospital, followed operations of this character.

Diagnosis: As an aid to the customary history and physical examination, the x -ray and the bronchoscope have proven of very great value. An expert bronchoscopist (Yankauer) could estimate the character and extent of the infection, recognize the presence of dilated bronchi, and ascertain from which lobe of the lung comes the main amount of discharge. Unsuspected radiotransparent bodies might be discovered and extracted with consequent cure in most cases of recent standing. New growths might be diagnosed by their gross appearance and specimens removed for microscopical examination.

With one of his ingenious devices, Yankauer has been able to wash out such a cavity without flooding the rest of the lung. Relief for several days may follow this procedure, which also may be useful as a pre-operative measure.

Lilienthal sounds a note of warning against diagnostic puncture performed before the actual time of operation.

Indications for surgical treatment are failure to improve under medical treatment and the demonstration (by the x -ray and bronchoscope) of a unilateral lesion which is not too far advanced.

Treatment: Palliative operations (drainage of the abscess cavity) are nearly as dangerous as radical (extirpation) and do not afford a permanent cure; besides, they are frequently followed by scoliosis due to the multiple rib resection.

Extirpation, "while surely a capital and dangerous procedure, *does* hold out the hope of actual cure."

Technic: The patient should come to the operating room with his lung as free of secretion as possible. An injection of morphine and atropine is given one hour before operation commences. Before starting the anesthesia, the thighs close to the body are constricted with rubber bandages so as to cut off the venous return and segregate as much blood as possible in the lower extremities. Lilienthal uses the intrapharyngeal method of anesthesia, the narcosis being mostly carried on with nitrous oxid and oxygen, ether being sparingly used.

The position of the patient should be with the healthy side downward. For attack upon the lower or middle lobe of the lung, an intercostal incision in the seventh or eighth interspace is made, beginning at the angle of the rib and running forward to the anterior axillary line. The pleura is usually opened near the posterior end of the incision and, by inserting the finger, the opening can be quickly enlarged forward without the danger of wounding adherent lung. The rib spreader is now inserted and the ribs forced apart. If more space is needed, it can be gained by dividing the ribs adjacent to the incision at their anterior and posterior ends. Dense adhesions should be divided between ligatures.

"Adhesions between the uninvolved lobe and the chest wall should not be disturbed. Their presence is a safeguard against the collapse of the lung and also against the danger of mediastinal fluttering."

"Inspection will reveal the dusky-red, diseased part in strong contrast to the normal lung and the observation will be confirmed by palpation."

Treatment of pedicle: In these infected cases the structures of the hilum are matted together by inflammatory tissue rendering dissection

time-consuming and perilous. Lilienthal therefore crushes the entire pedicle with a powerful clamp and the groove of crushed tissue is secured with a chain of chromicized catgut ligatures. The lung is now cut away beyond the line of crushed tissue and the vessels are separately secured beyond the first ligatures, the bronchial stumps are carbolized and are also once more tied but with no attempt to invert. If there are no adhesions between the remaining lobes of the lung and the chest wall, the stump is fixed by traction sutures to the thoracic wall to prevent mediastinal fluttering. (Draw over of the mediastinum to the well side upon inspiratory effort.) Very little force is necessary to steady the stump and consequently the mediastinum. Great care must be taken to avoid making undue traction upon this suture. In the presence of massive adhesions this stay suture is not necessary.

Lilienthal accepts infection as inevitable and provides for ample drainage. A few chromicized catgut sutures through the muscles approximate the ribs to a certain extent and the skin may be closed with silk leaving a drainage space for the ligature which supports the mediastinum and for the gauze drains.

The dressing consists of gauze padding held in place with adhesive straps which confine the diseased side only, no turns of bandage encircling the body. Respirations are kept down with morphine.

Convalescence is sure to be stormy. The ribs which at first are separated an inch and a half or more, gradually approach each other in from five to ten days. The slough of the stump comes away in time. In three of the cases there was a temporary bronchial fistula which closed spontaneously. Continuous suction may be employed to remove discharges if these are profuse.

Convalescence in the open air has been found of great value.

At the end of his article Lilienthal gives two tables of twelve cases treated by palliative operations; one was cured, five were somewhat improved and six died. Radical extirpation of the lesion showed seven cases, four well and three dead.—*Amer. Jour. of Surgery.*

THORACIC DISEASE—THE STATUS OF SURGICAL THERAPY.—Dr. Samuel Robinson of Rochester, Minn., read this paper in which he said that the treatment of diseases of the lung, the pleura, and mediastinum was in a lamentably chaotic state. Several questions arose: "Was it not probably that more cooperation between the internist and the surgeon might result in better treatment of the patient? Was the surgeon operating on lesions which the practitioner might cure? Was the practitioner treating some cases unsuccessfully which the surgeon might cure?" Surgery of the pleura began only where non-operative treatment failed. The surgeon would be found useful and safe in the treatment of post-pneumonic abscesses; in chronic lung abscesses he was less successful, and would welcome the exclusion of this group of cases from the surgical field. He was watching with interest the efforts with vaccines, climatic influences, and hygiene, but grieved at the limited accomplishments in this direction. He believed that early compression therapy in chronic abscess cases would do great good. Bronchiectasis would seem to be a chronic incurable disease. The records were hopelessly void of successes without surgery and pain-

fully attended with fatalities by operation. Artificial pneumothorax had been reported as curable but grave doubts were entertained as to the truth of this statement. The writer warned against permitting a surgeon to drain a case of bronchiectasis. It would do no good, possibly much harm. Emphysema was again a stumbling block. Surgery offered but one operation, namely, the removal of several costal cartilages on one or both sides. In a considerable proportion of cases it relieved distressing symptoms, but it did not cure. It might justly be contended that our methods of exploring the pleural cavity were inadequate. In the management of tuberculosis the practitioner must cease to look to the surgeon for help. The tuberculous patient was *a priori*, a poor surgical risk and the outlook for successful extirpation of tuberculous lung tissue was particularly discouraging. Neither was the drainage of a tuberculous cavity a profitable surgical measure. Of all swellings on the chest wall there were at least two types that were curable, the so-called "cold abscesses" and operable tumors of the chest wall. If there were lateral bulgings suggesting mediastinal tumor, the growth seen upon the chest wall was inoperable. The removal of an early localized malignant tumor of the lung was surgically possible, but the internist could not be expected to diagnose these tumors at an early stage. It was to be hoped that within a few years more successful extirpation of esophageal carcinoma might be recorded.—*Medical Times*.

SIMPLE STERILIZATION OF WOMEN BY CAUTERY STRICTURE AT THE INTRA-UTERINE TUBAL OPENINGS, COMPARED WITH OTHER METHODS.—R. L. Dickinson, *Surg., Gynec. and Obst.*, 1916, xxiii, 203.—The following is an outline of the other procedures for sterilization.

- (1) By opening the abdomen. (a) intra-uterine treatment.
- (2) Removal of ovaries if sound is unexcusable because of the sudden climacteric.
- (3) Removal of uterus and leaving ovaries and tubes intact is unwarranted except in case of tumor.
- (4) Removal of tubes with a wedge at the cornu is certain but is dangerous on account of the damaged ovarian circulation.
- (5) Excision of portion of tube with burial of proximal portion under peritoneum.
- (6) Ligation of tube single or double, not sure and is frequently followed by a hydro-salpinx.
- (7) By intra-uterine treatment as steaming has been abandoned.

The method as described by the author is a cicatrix formed by a cautery electrode.

The patient should be lying on the table with the clothing well loosened in Sim's position with the bladder empty. Introduce a Sim's speculum and grasp the cervix with a tenaculum. The room should be darkened and the operator wear a head mirror. Inject 5 to 10 minims of a ten per cent solution of novocain into the cervical canal with a Skeene pipette. Ten minutes are allowed for anesthesia. Wipe out the canal with Churchill's tincture or pure carbolic acid. Introduce a uterine

sound and locate the cornu, with a note of the exact distance. The cautery which is the same size and shape of the sound is pushed up for the same distance. On the end of the cautery there is a little spiral point of platinum wire which becomes incandescent. First test the cautery on the cervix or on the vaginal mucous membrane to learn the length of time necessary to produce the proper amount of slough. The other cornu is done in the same manner. The patient may then lie down a bit or go home in some comfortable conveyance. There may be the appearance of a bloody discharge the next day or a few days later. There may be increased discomfort at the next period.

The objections to this method will be unsuccessful attempts by unskilled operators. The application of the cautery at a point lower down than the cornu may produce an adhesion which will dam back the menstrual discharge. Local haematometra or haematosalpinx may result.

J. G. SPACKMAN.

POST-OPERATIVE HEATSTROKE.—A. V. Moschcowitz. (*Surg., Gynec. and Obst.*, 1916, xxiii, 443.)—The author cites 12 cases in which the cause of death after operation was in all probability due to this cause.

Autopsy was performed on most of the cases with negative findings as to any thing immediately referable to death.

In the majority of cases the onset was the same. Some of the cases recovered after prompt measures had been instituted for the relief of the excessive temperature. In none of the cases was there apparently any cause found or any operative procedure carried out which could account for the high temperature immediately after operation.

The symptoms were in general as follows:—

Rise of temperature immediately after or within 24 hours to 106, 107. The skin was dry and hot. Pulse rapid and weak. Some of the cases had several convulsions. Semi-conscious and unconscious.

In some of the cases the application of an ice cap and repeated sponging with ice water caused the symptoms to subside in a short time.

He calls attention to the fact that in very warm weather with excessive humidity, such as encountered in the mid summer, that no cases should be operated except those that are absolutely necessary.

That particular attention should be paid to the operating room to keep it as cool as possible and that the patient upon being returned from the operating room should have as little covering as is possible, and cooling drinks earlier than is customary.

That the routine measure of bundling the patient up in numerous heavy blankets and surrounding them with hot water bottles should be discontinued.

J. G. SPACKMAN.

THE TREATMENT OF THE FATTY CAPSULE AND THE URETER IN NEPHRECTOMY FOR RENAL TUBERCULOSIS.—H. L. Kretschmer. (*Surg., Gynec. and Obst.*, 1916, xxiii, 391.)—The author believes at the present time that the general opinion is that in unilateral renal tuberculosis, that the only chance offered for a cure is by operation. But that the opinion in regard to the treatment of the fatty capsule and the ureter shows a wide differ-

ence. Many authors completely disregard this topic altogether. Many recent writers regard them both as factors in the production of post-operative fistulae.

He points out that Stahr has shown by recent investigations that the two net works of lymphatics in the fatty capsule are in direct communication with those of the kidney cortex. This would tend to prove, if believed, that in renal tuberculosis, the fatty capsule must of a necessity become involved during the later stages of the disease.

During the past three years the author has made it a routine measure to remove as much of the capsule as possible. The presence of numerous adhesions at times makes this exceedingly difficult and must be carefully done because of the danger of infecting the peritoneum.

The author reviews the different operative procedures in regard to the treatment of the ureter. He believes that at the present time the general opinion is that less extensive methods should be employed than those formerly used, as the complete resection together with a part of the bladder.

The author removes as much of the ureter through the lumbar incision as is possible; divides and ligates the ureter between clips, cauterizes the end with carbolic and allows it to drop back into the wound.

The question as to whether the lumbar wound should be sutured or left open is a debatable one. Mayo advises that the cavity should be wiped out, filled with salt solution and sutured without drainage. The report of Cabot and Crabtree on their cases treated in this manner showed 25 remained tight. In many of their cases there was abscess formation from three to five weeks after the patient was discharged from the hospital.

J. G. SPACKMAN.

THE COMPLEMENT-DEVIATION TEST AS A GUIDE IN INFECTIONS OF THE URETHRA, PROSTATE AND VESICLE.—T. V. Williamson and S. W. Budd (*South. M. J.*, 1915, viii 781) state that the complement-deviation is of great value in treating gonococcus infection of the urinary and sexual organs. The test becomes positive about the third to sixth week of the disease. It is frequently positive after all other methods to detect the presence of gonococci have failed. The test remains positive a month or two after a clinical cure. This period roughly corresponds to the time needed to develop antibodies in the blood at the beginning of the disease. The chief value of this test is in the chronic cases in which the existence of gonococcus is difficult to establish by any other method, and by it the authors state they are enabled to determine whether a man is still infectious or not even though he may have some slight discharge which the complement-deviation test shows is not due to gonococci.

The test also has a medico-legal value, particularly to determine who acquired gonorrhea first, as between a husband and wife, says V. D. Lespinasse.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY DR. DONALD MACFARLAN
PHILADELPHIA

CONSERVATIVE TONSIL THERAPY.—That the tonsils were responsible for troubles in other parts of the body has too often been a conclusion based upon inference rather than upon actual demonstration. The removal of a tonsil without clinical history is a violation of all that makes for decency and common honesty.

SANGER, J. O. AND O. L. (JAN. P.)

THE NEW VS. THE OLD PRESCRIPTION.—The sincere homoeopathic practitioner is able to feel a deranged vital force lying back of the strolling microbe, the disturbed organ, or the pathological cell. He sees unity in life and unity in death, unity in health and unity in disease. He sees the sick individual *in toto*: the ultimates of disease and the dynamis of disease. And, as we can separate the chaff from the wheat, or the dynamis of man's ailments from the concrete or material form of such ailments, in the same proportion we grow into homoeopathy and come to be the living reproductions of Hahnemann, viewed as a therapist.

Disease is revealed by signs and symptoms. The symptoms of disease are of two classes: the common and the uncommon. Whatever is diagnostic of disease in general, and of the disease a given individual is suffering from, is necessarily common. The symptoms that lead the physician to diagnose a so-called disease are necessarily common to all who have that disease. Outside of the common, or diagnostic symptoms, lie the uncommon or characteristic symptoms of the case. The common symptoms are such also as belong to many remedies, for instance: anxiety, weakness, trembling, headache, constipation, vomiting, etc. These common become characteristic symptoms, when accompanied by a modality. Disease begins in the innermost of man. Reestablish order in the centers of man, and health will once more radiate to the periphery.

HOMOEOPATHY EXPLAINED. (VIEWS OF AN OLD BRITISH CONFRERE).—Homoeopathy is the practical application of the law "*similia similibus curantur*"—that is, *likes are cured by likes*—to the cure of disease. This law as an axiom, would read, *It is impossible for two similar diseases to exist in the same individual and at the same time.*

The homoeopathist, having the principle of "*likes are cured by likes*" on which to base his treatment of disease, acts in accordance with his law by choosing that drug as a remedy which, given to a healthy person, has the power of producing symptoms similar to, but not identical with, those of the disease to which it is homoeopathic.

Tartar emetic has produced an eruption so closely resembling that of smallpox as to have caused it to be mistaken for that disease. Yet a tartar emetic eruption is not, and cannot be, the smallpox eruption, because tartar emetic cannot produce, in a healthy individual, smallpox—that disease being dependent upon a miasm *sui generis*. In the provings of sulphur upon the healthy, an eruption was produced so closely resembling the itch eruption as to have excited the fear in the prover's mind that the sulphur had produced the true itch.

Homœopathists prepare their medicines in two ways—namely, by succussions and by trituration. The first method is applied to soluble drugs, the second to insoluble ones. Matter in solution must be equally dissolved throughout such solution, and must continue to exist, whether we are able or unable by our senses or chemical knowledge to demonstrate its existence visibly or not. Such a question really concerns the ultimate division of matter, and becomes one of calculation and figures.

Quicksilver may be taken in large quantities, and almost with impunity, passing through the digestive tube nearly unchanged. But take a small quantity of quicksilver, say half a dozen grains, and rub it up with twenty times its weight of common loaf-sugar for half an hour, and then take a grain of the mixture every three hours, and observe the now active properties of the mercury. Yet the mercury is not chemically altered by the trituration. Its new power has been developed by its extension of surface, for the subdivision of the particles of quicksilver is, to all intents and purposes, a method of increasing to an enormous extent the surface of the mercury. That large doses are not only unnecessary, but often preventive of the medicinal effects of a drug manifesting itself, is shown in the action of the oil of turpentine upon the urinary organs. Large doses of that drug are given by allopathic physicians, for the purpose of expelling tape-worm from the alimentary canal, with little effect upon the urinary organs. Yet oil of turpentine, in comparatively small doses, acts as a most violent irritant, causing intense pain when passing water, burning, scalding, and bloody urine, or even retention of urine.

The advantages most worthy of notice are, on the one hand, the possession of a law governing the medicinal treatment of disease, a knowledge of the effects of drugs upon healthy individuals, the administering of a single remedy at one time, the absence of disagreeable taste in the medicines, and the superior efficacy of homœopathy in infantile complaints. On the other hand, the patient's health is not injured as under the other system; the patient is not exposed to the risk of being poisoned—by mistake or by a large dose of medicine acting injuriously on an unsuspected idiosyncrasy of constitution; lastly, the period of convalescence is much shorter.

The homœopathist to govern his choice of the proper remedy, has in the first place the universal medical law—*similia similibus curantur*. The possession of such a law is of immense advantage to this practitioner, and consequently to his patients. An additional advantage is, that even if the disease be one hitherto clinically unknown, he has still an *a priori* guide to its treatment.

Secondly, the homœopathist knows the drug effects of his remedies upon the healthy. This knowledge saves the sick from experimental physick-

ing, and, at the same time, it gives to the practitioner the basis necessary to a beneficial application of his governing law.

Thirdly, Hahnemannians give but one medicine at a time. The advantage of such a method of treatment can scarcely be too highly commended. The old school practitioners seldom employ a less number of ingredients than three or four in one prescription—one drug thus neutralizing the effects of another, and all certainty with regard to the action of an single ingredient being at an end. It is true that their prescriptions do not contain so many ingredients as formerly, but the mischief is in the giving more than one drug at a time.

Fourthly, homœopathic medicines are not nauseous and this is an evident advantage, especially in the treatment of children and of those individuals with delicate organisms. Any prospect of benefit is often illusory when a filthy and nauseous draught is taken into a delicate stomach. Again, homœopathic patients are exempt from a few other miseries, such as bleeding, blistering, leeching, cupping, the actual cautery, setons and issues.

Sixthly, the patient's health is not permanently injured by large doses of poisonous drugs.

Since this was written the tremendous power of the German iconoclast has borne much fruit. Bleeding, blistering and the use of the flaming hot iron holds forth only a "sentimental" interest to the student of the history of medicine. Polypharmacy is slowly but surely dying out, suits of malpractice deter the too energetic druggist, and the use of bacterial vaccines and serums are getting coquetishly near the views of the great dissenter in medicine.

RICHARD EPPS.

THE PATIENT OF TO-DAY.—It certainly is a far cry for the untutored to homœopathy, with its principles of care that rest on health standards and which it keeps ever in view. Homœopathy does not say, "Wait, and the child will outgrow that disorder." In other words, the malady of childhood, not properly eliminated, persists in changing manifestation till adult life, old age, or death, varying its character or location as time passes. Accordingly, it strikes us as a bit peculiar that we should fail to recognize in homœopathy and *materia medica pura* the highest essence of diagnostic acumen. If any physician can make a sound diagnosis, it is the practising homœopathist.

The demand for the homœopathic remedy at different periods of life is illustrative. The childhood symptoms of *calcareo carbonica* are usually quite distinct from those of the adult needing the same remedy. True, certain ones may persist from infancy and, when they do, the happy effect of the remedy later in life is bound to be impressive. But, oftenest, the abdominal, circulatory and dermal crises are replaced by the articular and neuro-muscular.

JNO. HUTCHINSON.

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FIFTY-THIRD ANNUAL SESSION

SURGERY OF THE GALL-BLADDER AND BILE DUCTS.

BY

J. L. PECK, M.D., SCRANTON, PA.

MARION SIMMS, Blodgett and Brown were the first to deliberately open the gall-bladder. All three operations were done for empyema of the gall-bladder, and all three cases died. The first operation for gall-stones was reported by Kocher (1878). Spencer Wells instituted the ideal operation for cholecystostomy. Langenbuch was the first to excise the gall-bladder (1882). As a result of Langenbuch's early work biliary surgery through improved technique has become a safe and most satisfactory procedure. Following Langenbuch the development of biliary surgery to its present degree of perfection is in great measure due to such men as Kehr, Mayo Robson, the Mayo Brothers, Korte, Courvoiser, Kiedel, and others.

Indications for Operation.—Surgery of the bile passages which originated in the treatment of suppurative conditions has reached its highest development in the treatment of gall-stones. Modern surgery has made one of its most notable advances in biliary surgery. The indications for surgical interference are as a rule two-fold: First, to relieve mechanical obstruction in

the course of the bile stream, and the conditions associated with it (gall-stones, new growths, cicatricial contractions). Second, to provide escape for bile containing bacteria and toxins in all infective cases.

Gall-bladder surgery has fluctuated from one extreme to the other. Lawson Tait and many other experienced surgeons have practiced almost exclusively cholecystostomy, and drainage of the gall-bladder, and bile ducts, while many surgeons at the present day excise the gall bladder, combined with drainage of the common and hepatic ducts in almost every instance. Surgeons who adhere routinely to either of these methods are often in grave error. The life of the patient and no classic operation should be the first and chief consideration on the part of the surgeon. Failure to observe this common sense principle may lead to disastrous results. In the case of an inflammatory and infective process where there is a pericystitis, where the gall-bladder is adherent to the abdominal wall and surrounding structures, with superficial tenderness, drainage of the gall-bladder is all that is required at first. If the patient is not cured by drainage, a radical operation can be performed subsequently with far greater safety. Thus we have two distinct classes of cases which require different surgical treatment: First, the acute infective and inflammatory process, and, second, those in which mechanical conditions are in evidence, such as gall-stones without clinical signs of inflammation. As in acute appendicitis it is much safer to operate between attacks, than during the attack, where phlegmonous inflammation is present. It is better to subject the patient to two judicious operations resulting in recovery rather than adhere to a certain well performed classical operation which results fatally.

Cases of cholecystitis without stones are regarded by Frank as the most difficult to relieve permanently. Recently he has subjected these patients to cholecystectomy, and claims a greater measure of success. Often if the gall-bladder is subjected to drainage, an ultimate cure does not result. In this type cholecystectomy is necessary to secure permanent and complete relief. If prolonged drainage of the choledochus duct is necessary after the removal of the gall bladder, a tube is sutured into the cystic or common duct. In case of acute cholecystitis with pus the gall bladder being separated from the general peritoneal cavity by omental adhesions it is not advisable to remove the gall bladder. The gall-bladder is drained

disregarding the stones. These can be removed at a later date when the infection has disappeared. Cholecystectomy is indicated in all cases where calculi have remained in the cystic duct for some time.

It is estimated that in from ten to fifteen per cent. of laparotomies for other lesions gall-stones are present. It is generally agreed that the appendix should be inspected and removed when necessary when the abdomen is opened for pelvic disease. This does not hold when conditions are such as to contraindicate further operative manipulations. The same rule holds in case of gall-stones. It is unfair to dismiss a patient half cured to suffer from so-called attacks of "gastralgia" and "indigestion," when it is safe to remove other existing abdominal lesions at the same operation. Since quite a percentage of cases operated for pelvic disease have gall-stones, it should be a routine measure to palpate the gall-bladder in all such cases, and, unless contraindicated, to remove the gall-stones. In case of malignant disease of the pelvic organs, or where the patient is much depleted from hemorrhage, or exhausting disease, gall-bladder operations are contraindicated, except as might be necessitated to relieve severe pain.

In order to secure the best operative results gall-stones should be removed as early as possible, before complications have set in. Gall-stones are more common in women than in men. Women who have borne children are more subject to gall-stones. In the Mayo clinic 90 per cent. of the patients have borne children, and 90 per cent. of these women dated the beginning of their symptoms with some pregnancy. Gall-stones are much more prevalent in the middle and latter decades of life. Gall-bladder surgery performed coincidentally with pelvic surgery rarely prolongs the convalescent period.

Schroeder states that in Germany gall-stones are found in 20 per cent. of female and 4.4 per cent. of male necropsies. In various hospitals in Europe the percentage of gall-stones found in necropsies vary from six to ten per cent. In the latter decades of life, and in women who have borne children, and in the patients suffering from uterine and ovarian neoplasms, the percentage is much augmented. The percentage increases with each decade from the age of 20. There are very few cases under 20 years of age. The percentages vary from seven per cent. between the ages of 20 to 30 to 28 or 30 per cent. in the ages from 60 to 70. Harley estimates that 75 per cent. of

choleliathiasis occurs in persons over 40; 20 per cent. between 30 and 40; four per cent. between 20 and 30, and one per cent. in persons younger than 20. Mayo Robson and the Mayos claim to have found 90 per cent of gall-stones in women who have borne children. About ten per cent. have recurrent symptoms, 30 per cent. of gall-stones not removed in the course of pelvic operations show subsequent attacks of gall-stones.

Hubbard and Kimpton report 226 cases of gall-stones in the Boston City Hospital. There were three times as many women as men, and 60 per cent. of the cases fell between the ages of 30 and 50. Previous attacks of typhoid occurred in 28 per cent., and indigestion severe enough to be noted by the patient in two thirds of the cases. In 48 per cent. jaundice of some grade was noted. The stones in 70 cases were in the gall-bladder, and in 25 cases in the common duct. It is doubtful if the presence or absence of jaundice aids in diagnosing the position of the stone.

Of 23 cases of contracted bladders, 38 per cent. had stone in the common duct, while in 54 cases of distended bladders seven per cent. had stone in this situation, thus conforming to Courvoisier's law.

Of 91 cases followed, 81 per cent. considered themselves cured. The failures are usually due to a failure to remove all stones, or too short drainage. There was a mortality of 13 per cent. The chief complications were pulmonary and asthenic.

Regarding the re-formation of gall-stones after operation, Stanton states that notwithstanding the relative frequency of clinical recurrences following gall-stone operations actual re-formation of stones in the gall-bladder or ducts following their removal by operative methods is of extremely rare occurrence.

Richardson, in his extensive experience, had not, up to a short time before his death, encountered a single case which he could look upon as a true recurrence. In 1,780 gall-stone operations Kehr had only three cases of true recurrence. Kehr states that he has overlooked 2.5 per cent. of 1,105 cases, and Stanton believes that stones are overlooked at the first operation in from two to ten per cent., or even more, depending upon the skill of the operator and the class of cases which he is called upon to operate. Stones are sometimes found upon unabsorbable suture materials, or threads from gauze tampons used in operations. For this reason absorbable suture materials

should be used in gall-bladder surgery, the same being true in operations upon the urinary bladder.

The conclusion is that if no foreign material is used in operations upon the gall bladder or ducts, the re-formation of calculi will be an almost negligible factor. The two most important factors in end results of gall-bladder surgery are removal of all the stones and maintaining drainage a sufficient length of time. In the absence of organic duct strictures the question of cholecystostomy vs. cholecystectomy is one of expediency.

In many diseased gall-bladders it is wiser to remove the gall-bladder than to attempt to remove all of the stones and fragments of stones. The same is true where a great number of small stones are present. In large chronic cystic gall-bladders stricture of the cystic duct is usually present and removal of the organ is called for. Where the gall-bladder is contracted and its walls are thickened and diseased, the so-called "nubbin" of a gall bladder should be excised.

Summary.—1. The indication for operative interference in biliary disease is to relieve mechanical obstruction in the course of the bile stream and the conditions associated with it, and, second, to adhere to the "safety first rule" by establishing simple drainage in actively infectious cases.

2. Where a laparotomy is performed for other intra-abdominal lesions, unless contraindicated by existing conditions, the gall-bladder should be carefully palpated and proper biliary surgery executed. The usual contraindications are malignancy and enfeeblement of the patient from some exhausting disease.

3. Too much reliance cannot be placed on the presence or absence of jaundice in determining the existence of gall-stones or their location in the biliary tract. With this in mind and since in from two to ten per cent. of cases operated one or more gall-stones are overlooked, it is extremely important that a most careful search of the entire biliary tract be made to avoid this most embarrassing oversight.

4. Early operation before troublesome complications have intervened is necessary in securing the best results.

5. The failures in biliary surgery are usually due to a failure to remove all stones, or too short drainage. A lack of judgment in selecting the most judicious method of operating in each individual case will increase the percentage of failures.

6. It is claimed by the most competent observers that re-for-

mation of gall-stones after removal is of exceedingly rare occurrence.

7. Since stones are liable to form upon unabsorbable sutures or threads from sponges, it is all important to avoid the introduction of such materials in gall-bladder surgery.

8. The choice between cholecystostomy and cholecystectomy depends upon the condition found. The best results cannot be obtained by practicing any one method to the exclusion of all others. The common sense principle combined with ripened experience and wise judgment are as essential to success as in any other field of surgery.

THE RESULTS IN TREATMENT OF FRACTURES OF THE NECK OF THE FEMUR.

BY

JOHN A. BROOKE, M.D., PHILADELPHIA.

ABOUT five and one half years ago my attention was directed to a new method of treatment of fractures of the neck of the femur, as advocated by Dr. Royal Whitman, of New York. About this time I also saw several of Dr. Lorenz's cases in Vienna that were being treated by a modification of the Whitman abduction plan.

In 1912 I presented to the Oklahoma State Medical Society a paper on the above mentioned treatment. Since that time I have had the pleasure of working for more than a year with Dr. Whitman, and have seen a great number of fractures of the neck of the femur, both in hospital work and in private practice, treated by the abduction method. Unfortunately, accurate records of these cases have not been kept. I am, however, able to report on the last twenty-two cases treated by Dr. Hull and myself in the past year and one half. Most of these were private cases, and we have had the opportunity of observing the end results. Ages were 24, 25, 44, 2 (55), 56, 59, 66, 3 (68), 2 (72), 75, 77, 80, 2 (82), 84, 88, 89 and 97. These fractures were of all varieties: sub capital, inter trochanteric and per trochanteric—complete, incomplete and impacted.

In every case, when possible, an X-ray was taken to confirm the diagnosis and to show the position of the fragments, and

also after reduction to show the apposition of the fragments. In cases where it was impossible to take a radiograph the physical signs were such as to preclude any possibility of error in diagnosis.

Each patient treated was anesthetized; the fracture reduced; the fragments brought into their anatomical relationship, and this position fixed and maintained by a long plaster-of-paris spica extending from the toes to the nipple line. The limb being in full abduction. In impacted fractures with shortening and deformity, the impaction was always broken up by hinge-like motion, and a readjustment of the fragments secured. The plasters were allowed to remain unchanged for a period of ten to twelve weeks. After the removal of the plaster spica, the patient remained in bed for two or three weeks, then out of bed to a chair, from the chair to crutches, and then supporting a certain amount of their weight by a cane. The older cases are not allowed to bear full weight upon the limb until at least ten or twelve months have passed.

One of the cases resulted fatally, the old lady of ninety-seven. She stood the anesthetic well, and did nicely in plaster-of-paris for ten days. She then had a cerebral hemorrhage, a right-sided hemiplegia and died in twenty-four hours. Two of the cases, one 82, the other 84, were in such a physical condition that no effort at reduction could be made. One had advanced cardiac disease, and was only free from suffocative attacks when sitting in an almost erect position. The other had a kidney insufficiency, and considerable oedema of both legs.

There were two cases of non-union four months after injury, one in a man of 55, and the other, a woman of 66. The first mentioned was treated conservatively by reapplying the long plaster spica, after securing a better apposition of fragments, and a greater degree of abduction. Union has been slow, but now, ten months after the injury, there is a firm union, and no deformity, otherwise than a half inch shortening. The second case of non-union came to an open operation, and an autogenous bone-peg used after the method of Albee was inserted. This case had a slow convalescence—it was last October that the bone-peg was inserted. She now has a rather firm union, and is able to walk with a cane.

The remaining seventeen cases are able to be about, some are walking without support, a few are using canes, and one is still on crutches, because sufficient time has not elapsed since

the injury to permit a weight bearing. There is a good union without deformity in each of these cases, and in only two of them is there any appreciable shortness, and that only one half inch. The functional result in these seventeen cases will eventually be almost perfect.

One of the above cases mentioned was a woman of 44, who had gone fourteen weeks before the fracture was reduced by the method herein described. She had previously been treated by the Classical Bucks Extension without any effort of union whatever.

We believe there is no other method of treatment that will show equally good results in this class of cases. To secure these results it is necessary to possess an understanding of the fundamental principles of this plan of treatment, together with the knowledge of the use and application of plaster-of-paris. Where plasters are to remain unchanged for a period of ten to twelve weeks, special attention must be given to their application. In none of these cases did we have a suspicion of a bed-sore. Some of our cases were treated in the hospital, but many were cared for at home by inexperienced attendants. The physical condition of these patients after weeks in plaster was remarkably good, and some few have even grown fat.

Fractures of the neck of the femur are more frequent than commonly supposed. The X-ray often reveals old fractures unreduced. These cases complain of pain and have limitation of motion at the hip joint, and with only a history of slight injury.

In treatment of all fractures we strive to get a perfect anatomical result and the restoration of normal function. To get these results in fracture of the neck of the femur, we must have, first, a complete reduction of the deformity, whether it be a separation of the epiphysis, impaction, or with a wide separation of fragments. Secondly, restoration of the normal angle of the neck with the shaft; if this angle is lessened, we have coxa-vara and limited abduction. Thirdly, maintenance of fixation until there is no longer danger of displacement.

These conditions are manifestly more difficult to secure at this joint than at any other, for direct manipulation of the upper fragment is impossible, and apposition can only be obtained by adaptation of the outer to the inner fragment. When the limb is placed in extreme abduction, the upper rim of the acetabulum acts as a fulcrum in restoring the normal angle of

the neck and shaft. The outer fragment is turned downward and inward toward the inner fragment. In full abduction, under traction the capsule is made tense, and being attached about each fragment, this tension should align them. If the fracture is near the head, the outer fragment is engaged beneath the rim of the acetabulum, thus providing a direct check against displacement. In this extreme abducted position, the muscular contraction is powerless to induce deformity. The abductors and external rotators are relaxed, while the flexors—the ilio-psoas group, would tend to draw the femur upward and inward, and appose, rather than separate the fragments.

I want to briefly review the abduction method of treatment. The body and fractured limb are covered with a well fitting union-suit, or a piece of seamless shirting sewed in shape. All bony prominences are protected with sheet wadding and thin felt, especially over the sacrum and spine, and a flannel bandage over all. The patient is then anesthetized and placed in a position for setting the fracture and applying the plaster, either on a fracture table like Hawley's, or on a box seven or eight inches high supporting the head and shoulders with the pelvis resting on a sacral support, a sheet is carried around the perineum, the two ends united and held by an assistant at the head of the patient for counter-traction. Another assistant abducts the well limb to the full extent, thus demonstrating the normal range of abduction. It also fixes the pelvis and prevents tilting. If the fracture is complete, the limb is first flexed and rotated to disengage any portion of the capsule that may be caught between the fragments, then gradually extended the limb. The shortening is overcome by traction and counter-traction. While traction is maintained, the outward rotation is slightly over-corrected, and the limb gently abducted to its full range, or until the trochanter is in apposition to the side of the pelvis. The operator pressing the trochanter downward and inward. Measurements should be made from the anterior superior spine to the malleoli, to see that there is no shortening. The plaster-of-paris is then applied from the toes to the mammary line.

The advantages of this treatment over the time-honored but most inefficient method of weights and extension, sand-bags, and long external splint, is that you get a complete reduction of your fracture; you secure apposition of your fragments, and this apposition is maintained until union can take place.

The failure to fix and immobilize the fragments after reduction is the weak point of the other methods of treatment. Furthermore, with plaster well applied, the patient is not markedly uncomfortable; they can be moved about the bed, or placed on a cot and taken out on the porch, turned on their side, or completely over, without any danger of disturbing the relationship of the fragments. Within a few days after reduction of the fracture, and application of plaster, selected cases may with safety, be sent on a train to their homes at a distance.

The open operation is rarely indicated, except in the epiphyseal separation of the adolescent where the fragments are often displaced and adherent, and in the older cases, where non-union persists, or where the fragments are so displaced as to be irreducible by ordinary manipulation.

DISCUSSION.

DR. H. W. CHAMPLIN, Towanda: I think we may all ask what it is best to do in the private home, where one cannot do all the things described; or when the patient cannot reach a hospital and is not within reach of a competent specialist. My experience has been that by the use of sand-bags and other means, I have been able to make such patients comfortable.

DR. BROOKE, closing: A number of these cases that I have cited were put up in private homes. Unless, however, one is somewhat well equipped to do the work, having a knowledge of padding, etc., it will test the ingenuity of anyone that attempts it. But ordinarily, in the work that I have done when sent for at a distance, I take with me a common suitcase, which I use as a support for the head. I have in the suit-case a long roll of sheet-wadding, some flannel bandages, and some pieces of piano felt, which is rather heavy felt, together with a large amount of plaster. The pelvic rest that I use most has a post going up the center of it, which can be used for traction. It will hold the patient when you pull. I use with it a sheet, which is placed around the perineum and held by someone at the head. In addition to that, I employ a fracture table and have someone hold each arm at the shoulders, to keep the body from being moved to either side. The case can be put up satisfactory in that way. As good results as I have ever had I secured in farm-houses, where I had no one to help me except the doctor who had called

me in and some of the farm hands and neighbors. You can usually get a good alignment in that way, and apply the plaster almost as well as with an elaborate fracture table. Certainly, of the series of cases that I have reported, three had impaction. The classical symptoms are outward rotation; inability to move the leg inward, usually accompanied with shortening, in fracture of the neck of the femur, and also inability to raise the leg. In the cases of real impaction of rather severe grade, the limb has been adducted and rotated inward, as in posterior dislocation of the hip. There will be more or less shortening in these cases. We always break up the impaction. In college, we were taught not to do this, or the fracture would never unite; but we have learned a good deal since then, and know that we can get alignment. You restore the contour of the shaft, which gives you the normal line of the leg. In some cases in which a diagnosis of sprained hip or hip-joint disease had been made, we found fractures without much deformity, but with this impaction. These got more severe, as time went on, so that the patient became an invalid from that time.

RADIOGRAPHY BY THE GENERAL PRACTITIONER.

BY

GOUVERNEUR H. BOYER, M.D., POTTSVILLE, PA.

THE purpose of the paper I am presenting is to show you the advantage and practicability of doing your own X-ray work in your own office. You have all been confronted with the same proposition that I faced a few years ago, when I found that referring patients for X-ray examination involved the loss of the patient to the man taking the picture, or the expense of a trip to Philadelphia. In addition, I determined to learn what made the difference between good and bad pictures, what caused burns, and in general to get acquainted with the mysteries of the X-ray. There is another reason why the family doctor should do his own X-ray work, and it is much more fundamental than considerations of self defense, because based on a psychological rule of general application. No examination will be made routinely unless it is easy and convenient. We will rarely examine chests with the clothing removed, we will rarely examine test meals, we will rarely perform the trifling operation of cystoscopy the female bladder, we will

rarely repair the lacerations of childbirth; and the reason is not lack of armamentarium or inability to do the work, but merely the inconvenience of stepping out of our routine to do something unusual. Our fracture cases will not often be radiographed before and after reduction, unless it can be done on the spot, and conveniently.

Repeated radiographs not only of the injury and the primary reduction, but of the position on discharge, are of the very greatest value in estimating the extent of the injury and the effect of our efforts to heal. A value has been added to this record by the fact that many injury cases are medico-legal cases, and that at least one large employer in this region is disposed to resist claims for compensation. As physicians we are something better, I hope, than bone mechanics hired by the hour; it is our duty and privilege to help the injured man secure the pittance allowed him by law, and to do this, we must secure ourselves against the transfer of responsibility from the employer to ourselves. A set of radiographic plates supplies not only the evidence of injury, but also the evidence of due care exercised in treatment.

It is surprising what a proportion of fractures are discovered by the radiograph in injuries supposed to be strains or contusions. I have three in this set, in which fracture was first recognized by the picture.

As a guide to setting, nothing can be so satisfactory as to prove to yourself that broken fragments are properly opposed by seeing them. The mere saving of painful examination should appeal to the humane physician. It is my practice to radiograph every fracture, dislocation or severe injury coming to the office.

The late results of fracture healing are wonderfully well studied by occasional pictures, and I venture to predict that anyone studying fractures in this way for the first time, will be astonished at the slight amount of union shown at the end of three to six weeks. In many cases nothing but callus is present at this time, and we can get, from the pictures, a very great increase of respect for conservative measures in vicious union. I refer to the use of pressure pads and splinting for the correction of moderate residual deformities, which can be improved in this manner for weeks, and sometimes for months, after union which appears firm on manipulation.

In foreign body cases, no argument need be used to show

the value of a radiograph with the foreign body out. A case of my own brought this up forcibly when a girl with a portion of needle in her finger, in plain sight, was radiographed, and a second portion of the needle discovered. Had the radiograph not been made, the second piece would undoubtedly have been left in, and the course of recovery prolonged by weeks.

Two great considerations restrain most of us from taking our own pictures: First, the fear that we cannot successfully take the pictures, or that we may produce X-ray burns; second, the consideration of expense. Both of these may be successfully met. X-ray burns are caused by a perfectly definite amount of radiation, and if this amount is not exceeded, burns will never result. The practice of recording exposures in seconds or minutes, without including the other elements of exposure, is very common even among professional X-ray men, and it cannot be condemned too strongly. The X-ray exposure is made up of six factors:

1. Type of machine. Every machine especially the small coil has an exposure factor affecting the dosage required to burn. The coil I show here will burn with one half the exposure that is needed from a transformer outfit.

2. The tube. Tubes vary in thickness of glass, in material of which the target is made and in the actual penetration with a given spark gap. These factors can be determined with ease.

3. Condition of the tube at time of use. Easily and quickly measured by testing the ability of the tube to back up a spark.

4. Distance of target from patient's skin.

5. Amount of current used. Measured in milliamperes.

6. Length of exposure.

These last two factors are not capable of reduction to a single factor of exposure in milliamperere minutes, for increasing the current volume causes a change in the condition of the tube, increasing its penetration and causing it to back up a longer spark. With these factors known, a reference to a table which I keep posted in front of the switchboard is sufficient to determine just what exposure is permissible, and no burn need ever result.

I have caused two burns to patients, due to the following facts: Although the penetration, distance, and exposure were carefully measured, and did not exceed the permitted amount, the tube I had used for several hundred exposures had broken

down, and I used a new one. The old tube had a platinum target, the new one a tungsten. My rule with the old tube had been not to exceed $2/3$ of the exposure given by the table, this amount had been used many times.

When used with the new tube it proved too high, with resulting epilation in one case, and transitory erythema in another. A reduction in the allowance to 50 per cent. of the table has prevented a recurrence of the accident.

The amount of radiation necessary to take a picture of most parts of the body is small as compared with the amount required to burn. It is possible with a coil of this sort to take 70 pictures of the wrist, 60 of the elbow, 60 of the ankle, 20 of the knee, 10 of the chest, without risk of burning. Let me add a word of caution. Do not attempt more than one exposure of the hip of an adult with a coil. Successful hip pictures require hard tubes which do not work well on coils.

Now we come to the great item—the cost. My estimate of expense for 300 pictures is \$1.80 per plate, including waste and discarded apparatus.

Cost of plant:

Coil	\$35
Tube holder	10
Tube	30
Shield	10
Valve tube	10
Milliammeter	15
Wiring and switches for 15 amperes ...	21
Interrupter	15
Dark room equipment	40
Dark room including plumbing and electric light	62
	<hr/>
	\$248

Or an outfit complete, ready to run, can be bought for about \$250, with which the whole cost of installation would come to \$400.

There is no need of buying the expensive and cumbersome 18 or 24-inch coils that were popular ten years ago. A properly designed small coil answers every purpose. Mine cost \$35, and took all fractures, chests and dental radiographs that I shall show you. Tubes for small coils must be pumped for

the coil they are to be used with. You cannot use a transformer tube with a small coil because the breakdown resistance is too high. This limits the penetration with which you can work, and makes it difficult to take pictures of thick parts. The limited output makes it impossible to take good pictures of bismuth meals, but for every ordinary use of the family doctor an eight-inch coil is plenty large enough, and a six-inch coil can be used, with due care.

The expense is divided as follows, if sixty pictures per year are taken:

Interest, 6 per cent.	\$.20
Depreciation, 20 per cent.67
Cost and repair of tubes25
Plates and envelopes30
Development chemicals05
<hr/>	
Total	\$1.47

I gave you my personal expense as \$1.80. The difference is due to my having to spend considerable to learn the ropes; \$1.47 would amply cover the expense if I could start out afresh at this time.

I charge about twice what the city radiographers do, and can compete with them for work. I cannot compete at all with the free hospitals of the county. Compensation cases pay a profit but are mostly treated by the contract physicians.

The pictures I have to show you are, of course, the best ones selected from my files. A few were taken with a little Tesla coil; a few with an eight-inch coil which I made, but most of them with the one that you see here. No special apparatus is needed for taking stereoscopic pictures of fractures and the slight additional trouble is well paid for by the result. Some form of stereoscope must be used to view the pictures with.

X-ray plates are faster than ordinary photographic plates, but not at all necessary. The photographic plates can be gotten fresh in every town; they are at least half as fast as the X-ray plates, and give better pictures. For all except the heaviest exposures I find the ordinary photographic plate perfectly satisfactory.

CIRRHOSIS OF THE LIVER. VARIETIES: CLINICAL AND PATHOLOGICAL.

BY

JOHN G. WURTZ, M.D., PHILADELPHIA.

THE object of this paper is to briefly review the present-day conception of hepatic cirrheses, and to give so far as possible concise pathological and clinical pictures of these conditions.

The liver, the largest glandular organ in the body, is of complex structure and endowed with a multiplicity of functions, disorders of which are but little understood. Health and disease both consisting of a sum of variables having no well defined limits, often overlapping materially to pass gradually one into the other. The beginning of these gradual accumulations of pathological conditions may often escape observation, and marked structural alterations and functional disturbances become well advanced before symptoms develop.

Cirrhosis of the liver is a chronic condition presenting a variety of anatomical pictures according to the period of the disease, the rapidity of its progress, the character of the degeneration, and the extent of repair; and a variety of clinical pictures depending on the functions inhibited. To the clinician cirrhosis is a chronic, progressive, destructive lesion of the liver, combined with reparative activity and contraction on the part of the connective tissue, which contraction leads to obstruction of the bile ducts, or liver veins, causing more or less jaundice, or ascites. The pathologist applies the term to any sclerosed condition of the liver whether progressive or not, in which destruction of the liver cells is associated with real or apparent increase of connective tissue.

The introduction of physiological and pathological chemistry into modern medicine, along with the closer relationship established between the clinic and laboratory, caused an attitude toward cirrhosis akin to that toward nephritis; a functional disturbance. Marked advances along this line have been slow, owing to the liver's versatility. It is difficult to study the functional capacity of an organ whose functions may be taken up in part by other tissues of the body. The remarkable regenerative power of the liver, and the fact that one half, or even three quarters of the liver may be destroyed without apparent ill ef-

fect, render the relationship of the functional to the structural changes almost impossible.

Unlike renal function tests, those applied to the liver are relatively few and unreliable. No single test meets all requirements, because the many liver functions may act independently of each other, and some, as before stated, may be carried on by other tissues. Natural signs of faulty liver function are the presence of urobilinogen in the urine, the increase of ammonia compounds in the urine, and the tendency of patients with cirrhosis to hemorrhages from the gums or nose. When urobilinogen is found in the urine it shows that bile is reaching the intestine to be broken up and reabsorbed in the form of urobilinogen and urobilin; but the liver cells not functioning properly, are unable to reconvert it into bile, so the urobilinogen passes into the general circulation to be eliminated by the kidneys. Urobilinuria is a quite constant sign of liver cirrhosis.¹ When there is an increase ammonia output in the urine, it suggests the inability of the liver to split ammonia compounds. The spontaneous hemorrhages sometimes found associated with cirrhosis may be due to the impairment of the fibrinogen forming power ascribed to the liver.

None of the established functional tests as represented by Strauss' levulose, and Bauer's galactose, and the phenoltetrachlorophthalien test are of any clinical value in the opinion of McLester and Frazier,² and Chesney, Marshall, and Rowntree,³ and McNeil,⁴ all of whom have done considerable work in this field. Nor are these tests so reliable as are similar tests applied to the kidney.

The etiology of cirrhosis is but little understood. It may be toxic, mechanical, or infectious, and the causative agent may enter the liver by way of the portal vein, the hepatic artery, or bile capillaries. The route by which it enters, determining the type. The commonest accepted etiological factor is alcohol in the form of distilled liquors, though cirrhosis may occur in

1.—Wilbur, R. L., and Addis, Thomas: Urobilin: Its Clinical Significance, *The Archives Int. Med.*, 1914, xiii, 235.

2.—McLester, James S., and Frazier, Blanche: Phenoltetrachlorophthalien Test of Liver Function in a series of Unselected Cases, *The Journal A. M. A.*, 1915, lxy, 383.

3.—Chesney, A. M., Marshall, E. K., and Rowntree, L. G.: Studies in Liver Function, *The Journal A. M. A.*, 1914, lxiii, 1533.

4.—McNeil, H. L., Quantitative Estimation of Phenoltetrachlorophthalien Excreted in Fresh Bile in Disease of Liver, *Jour. Lab., and Clin. Med.* August 1, 1916, No. 11, 822.

wine and beer drinkers, and even in non-alcoholics. Grover,⁵ after animal experiments, concludes that alcohol given over a long period of time will produce cirrhosis when no other apparent factor is at work. However, after a consideration of the experiments of many investigators, it is safe to say that all animal work done along this line has been variable and unsatisfactory. Some clinical observers contend that alcohol is not so responsible as is generally supposed, because cirrhosis is not so common among alcoholics. Whyte⁶ says, "Excessive drinking is prevalent in Dundee (Scotland) while cirrhosis of the liver is not very common." Fletcher⁷ contends that since alcoholic excess is common, and biliary cirrhosis is uncommon; alcohol at least is not likely to be a cause of biliary cirrhosis. Some believe the condition to result from a gastro-intestinal catarrh, whether due to the abuse of alcohol or diet irregularities, in which digestive disturbances cause an autointoxication the poison of which acts on the liver. Many organic acids, among them butyric, acetic, lactic, and oxalic acid; such products as indol, skatol, and phenol; toxins from microbic agents; and the metals, lead, silver, and arsenic are among the agents known to produce cirrhosis.

Mallory⁸ admits of five types of hepatic cirrhoses: toxic, infectious, pigment, syphilitic, and alcoholic. Under these may be classed all varieties. It may be well to mention in an irregular manner, some of the less common cirrhoses which are usually secondary to other and often more important conditions, and leave portal, biliary, and syphilitic cirrhosis for a more lengthy discussion which their occurrence and nature demand. Of the less common varieties of this affection are: (1) Obstructive biliary cirrhosis caused by the damming of the bile in the bile capillaries by the pressure of a tumor or stone; (2) capsular cirrhosis resulting from a chronic peritonitis; (3) arterio sclerotic cirrhosis due to a paucity of the liver cells, and the increase of fibrous tissue associated with advancing age; (4) cardiac or passive congestion cirrhosis due to fibrous tissue replacing the parenchyma destroyed by the pressure of blood; (5) cirrhosis with hemochromatosis in which the fibroblasts

The Archives Int. Med., 1916, xvii, 193.

5.—Grover, Arthur L., *Experimental Alcoholic Cirrhosis of the Liver*,

6.—Whyte; *Clin. Jour.*, 1913, xlii, 317.

7.—Fletcher: Allbutt and Rolleston, *System of Medicine*, iv, part 1, 187. Macmillan & Co. 1908.

8.—Mallory, Frank B.; *Bull. Johns Hopkins Hosp.*, 1911, xxii, 69.

are stimulated to over-production by the irritation of pigment deposits. This form is analogous to the rare carbon or anthracotic cirrhosis; (6) the rare cirrheses caused at times by malaria, and tuberculosis; and (7) the fibrous change which follows acute yellow atrophy of the liver. The last is better considered as a scar since it is a finished product not tending to progress.

The important types are the aforementioned portal, biliary, and syphilitic cirrhosis. All forms are characterized by an increase of connective tissue which is almost systematic in its formation and which invades the organ at the expense of or in addition to the parenchyma. In portal cirrhosis the liver may be enlarged, normal or diminished in size. The old terms, "hypertrophic" and "atrophic" are becoming obsolete. Any variety of hepatic cirrhosis may enlarge or diminish the size of the organ, so the old terms mean nothing but confusion. Whether the liver is large or small it is hard, granular, irregular, and "hob-nailed." On section is seen light gray bands of connective tissue enclosing various sized islands of liver cells, which may be dark red, yellow or olive green in color. Microscopically is seen an increase of connective tissue of the fibrous variety. Bands of varying thickness envelope one or several liver lobules. The relationship of the parenchymal cells to each other, and to the central vein is lost. The liver cells show atrophy following a hyaline degeneration of the cytoplasm due to the causative agent. Fatty changes and necrosis may also be observed. So far as the hepatic cells are concerned there is but little attempt to regenerate. New bile duct formation is common, for when the liver cells of a lobule are destroyed the bile ducts grow out a certain distance toward the hepatic vein. The proliferation of bile ducts is absolute and relative. Relative in so much as number of ducts are encompassed within a small area because of the contraction of the connective tissue and the atrophy of the liver cells.

Biliary cirrhosis usually presents a liver which is enlarged, hard, and increased in consistency. The surface is smooth or finely granular. On section the organ is a dark olive green in color, and smooth, or slightly granular in advanced cases. Microscopically is seen an increase of connective tissue with a special invasion intra-acinously. Single cells or groups of cells are surrounded by a connective tissue which is more cellular than that of portal cirrhosis. The liver cells are but

little changed. The cirrhosis begins in the biliary canaliculi of the portal spaces, causing a radicular cholangitis. There is too a dilatation of the bile capillaries and a marked proliferation of bile ducts.

Syphilitic cirrhosis as a rule presents a slightly enlarged liver with no marked gross features. Microscopically is seen a great increase of richly cellular connective tissue, which widely separates single or small groups of liver cells. This cirrhosis may be diffuse or patchy and miliary gummas are frequently associated. In the gummatous type of syphilitic cirrhosis, the liver presents nodules of various sizes and number. The centers of these nodules are often caseous. This necrosed center may become absorbed and a pronounced fibrosis occur. Radial processes may lead into the liver substance to later contract and form stellate scars, causing considerable distortion of the organ's shape; cicatricial lobulation. The early gummas show under the microscope to consist of numerous lymphocytes and endothelial cells. Necrotic foci, and fibrous bands are the usual findings. Syphilis may be responsible, too, for a perihepatitis similar to that sometimes caused by chronic peritonitis. Of all the abdominal organs, the liver is the one most likely to be affected by syphilis, both of the inherited and acquired type.⁹ And syphilis of the liver, like syphilis of other tissues is responsible for an almost endless variety of conditions.

The clinical varieties of cirrhosis of the liver may be said to be determined by the four cardinal symptoms: hematemesis, ascites, jaundice, and abdominal tumor—either hepatic, or splenic, or both. Any one or two of these symptoms may be absent. In some cases all may be absent, and the patient present symptoms none of which point to the liver as the probable seat of trouble. Like in the case of chronic interstitial nephritis, pernicious anemia, or some other more or less common disease, the onset is insidious, and the patient may experience no discomfort until cirrhosis of the liver is fully and fatally established. Usually, however, there is a history of dyspepsia, constipation, perhaps bleeding gums, or epistaxis, hemorrhoids, and occasionally diarrhoea. I mention hematemesis, ascites, jaundice, and tumor as the important signs of cirrhosis, but according to Cabot,¹⁰ there are three conditions which

9.—Hawkins: Allbutt and Rolleston, *System of Medicine*, iv, part 1, 200. Macmillan & Co. 1908.

10.—Cabot, Richard C.: *Differential Diagnosis*. Ed 2, W. B. Saunders Co. 1912.

cause hematemesis more often than does cirrhosis, and as a cause of ascites cirrhosis is fourth on the list. As a cause of jaundice cirrhosis of the liver is sixth in the order of frequency, and as the etiology of hepatic tumor this condition is fourth, and of splenic tumor third on the list of diseases.

Frequently ascites is the first sign of liver cirrhosis, as it was in the case of Mr. F., age 56, who was a user of alcohol, tobacco, tea, and coffee. February 1, 1916, he had the grip, and three weeks later began to complain of pain in the liver region, and of abdominal swelling. March 6, 1916, he entered Hahnemann Hospital, Philadelphia, and the following day 8,920 c.c. of fluid was drawn from his abdomen. His urine presented a trace of albumin, his stomach contents revealed occult blood, and his blood gave a positive Wassermann. Autopsy revealed a capsular cirrhosis, undoubtedly of syphilitic origin. It sometimes happens that hematemesis—which by the way is rarely fatal—is the primary symptom. It so occurred in the case of Mr. L. D., age 36, an alcoholic. This patient first vomited blood in 1912, but not until December 26, 1915, did the terminal symptoms bring him into the hospital. A portal cirrhosis was found at autopsy. Often abdominal tumor, hepatic or splenic is the initial sign, and frequently as a first sign is the jaundice associated with some forms of cirrhosis. This type of case is demonstrated by that of K. DeR., female, age 31, who entered the hospital on January 6, 1916. Her chief complaint was of her yellow color, and a vague pain in the region of the liver. Biliary cirrhosis was revealed at autopsy.

As a rule in portal cirrhosis there is present an ascites, and no jaundice; while in biliary cirrhosis there is jaundice and no ascites. In some instances the patient may be suddenly afflicted with a toxic condition due to the systemic invasion of some unknown poison through the improperly functioning liver. This toxic state resembles uremia, or diabetic coma, and may be the first suggestion of cirrhosis of the liver. The symptoms of portal obstruction vary according to the extent and completeness of the collateral circulation. This collateral circulation, and the esophageal varicosities resulting from venous obstruction, are a standing menace rather than an improvement on nature, though they occur as an attempt to repair.

After the advent of ascites the changes in the liver are irreparable and death usually occurs within eighteen months. Sometimes death may result from a mild grade of cirrhosis which presented no appreciable symptoms.

The laboratory findings in portal cirrhosis are usually a secondary anemia, with an irregular hyperleucocytosis, and complement binding substances in the serum. The urine may show digestive glycosuria, increased ammonia output, acidosis, albuminuria, choluria, and urobilinogen. The ascites proves to be a pure transudate.

Biliary cirrhosis has an insidious onset, with slight jaundice or liver enlargement as the first sign. The symptoms are variable, as before mentioned. Enlarged spleen usually accompanies all cirrhoses. This condition is due to a congestion of the spleen, and later to an increase of trabeculae caused by the irritation of the toxic agent. Splenic tumor is by no means constant. Biliary cirrhoses may be classed according to the occurrence of the splenic tumor. The liver and spleen may be enlarged concurrently; the enlarged spleen may predominate, the splenomegalic type; the spleen may be larger than the liver, the hypersplenomegalic type; the spleen may enlarge first, the metasplenomegalic type; the enlarged liver may predominate, the hepatomegalic type; the liver may enlarge first, the pre-splenomegalic type; and there may occur an atrophy of both organs.¹¹

The laboratory findings in these cases are a marked secondary anemia, relatively frequent hyperleucocytosis of the neutrophilic type, cholemia, complement binding substances in the blood serum, and delayed coagulation. There is present choluria, albuminuria, and cylindruria.

The picture presented by syphilitic cirrhosis is the picture of any cirrhosis, or a mixture of the signs and symptoms of both portal and biliary cirrhosis. There may, however, be other manifestations of syphilis elsewhere in the body. The Wassermann is often unreliable because of the presence of complement binding substances in serum in non-syphilitic cirrhosis.

11.—Dieulafoy: *Text Book of Medicine*, 1, 915, D. Appleton & Co. 1912.

COMPULSORY REFRACTION.

BY

PERCY A. TINDALL, M.D., PHILADELPHIA.

As the twig is bent—the tree is inclined. The force of the old saying is brought home to us daily as we see the “chickens come home to roost,” the rancid, soggy bread return upon the waters, in men’s lives when their earlier days rise up to demand a full accounting. These words and some to follow are taken from a recent editorial in the *Public Ledger*, when the writer felt in the humor of moralizing on the evil in men’s lives and emphasizing the fact that total depravity is not reached in one bound, but the culmination of a life of small things and minor offences, constantly enlarging in a pernicious direction. Evidently there was a taint in the blood at the start. Who can say what might not have been done to eradicate or mitigate that taint with a fit environment and a careful training? Nature and life are pitilessly logical and if we make no effort to change or control abnormal conditions, we have no special exemption to plead later.

The highest conception of life is one of service, one that gives its uplifting influence and service to others and what higher service can there be than the early training—morally, physically and intellectually—of children in the formative stage, from teachers whose moral and physical environment is beyond question?

The title of this paper might perhaps more aptly be given as “the refinement of early training,” for children may have the usually considered sufficient environment for their early school days, such as pleasant surroundings, good schools and good teachers, but if they should have an unnoticed defect in some organ of the body and we will say the “eye” for that is the organ that now concerns us, they cannot develop with the same freedom from mental misconception as the one with a normal eye. If it is not a mental misconception it is very likely to be a physical distortion and often times a combination of both, for the eye unconsciously endeavors to overcome errors that may be present. In this age we cannot be satisfied with the training that only gives the fundamental requirements of normal living—we must have the refinement of early training, and

that means that we must have a physically perfect child to deal with. If a child is born with certain defects or they are acquired in the early years of life, they must be corrected if possible and with the eye this is most frequently possible. History has been made by those who have developed in conditions, where there was an utter lack of physical, moral or financial encouragement. But the great majority raised under similar circumstances have been unable to overcome the handicap and development by association is extremely slow and uncertain.

The Committee on the Conservation of Vision of the A. M. A., in recording the results of their endeavors during the past two years, state that they have not only relieved thousands of children from many defects, giving them better educational possibilities and physical conditions, but they have wonderfully helped the physical, mental and nervous conditions of the teachers.

In view of the fact that this is an age when so many therapeutic fads and fancies are appealing to physicians and the public in general and that lines of treatment from a thump in the back to swallowing their own discharges are being quoted as producing marvelous cures, it might not be amiss to call attention to the fact that we have an old and proven remedy that has caused to disappear some of the most obstinate and obscure symptoms—and the remedy is the wearing of a pair of glasses. The thought is so prevalent that the eyes should only be examined when some defect of vision is present or persistent headaches annoy, that I desire to make a plea for the thorough examination of the eyes of all patients who suffer from any chronic complaint whatsoever, irrespective of ocular suggestion. The conditions calling for correction—myopia, astigma and hyperopia—are practically organic or fixed conditions and if the error is not too great, the eye can often overcome the defect and present normal vision, presenting no special eye symptoms calling for attention, but under such conditions the unusual effort required to overcome the error must produce symptoms somewhere in the body.

Many men of authority are on record, quoting conditions and cases where common and remote symptoms that have had no ocular suggestion whatever have been relieved or removed entirely by having a refractive error corrected. Some have stated that such symptoms or conditions as curvature of the spine, peculiar abdominal symptoms, mental afflictions of vari-

ous forms, many conditions that have baffled astute prescribers have been caused by errors of refraction and relieved by their correction. The peculiar mental attitude of many great men—men who are melancholy, morose, crabid, domineering—might easily have been due to some mental misconception that has developed since childhood or perhaps come down from a preceding generation, because a refractive error was automatically corrected at an automatic expense.

If all school children in their early years would have their eyes correctly examined and when necessary the proper correction given and thus all children made equal—who can say that when a few generations of such children have walked this terrestrial sphere that they have not found the “sweet elysian fields” we now dream of.

The object of this paper is to suggest, or rather insist, that a complete and thorough examination under a cycloplegic of the eyes of all school children should be instituted as a regular routine. I believe the time will soon come when such a method will be instituted in the early years of school life and a complete record of the findings kept. In such a way not only will the general health of the children be enhanced, but what a wonderful statistical bearing it would have regarding the development of many eye conditions, wherein the cause is now more or less theoretical. It is far better to give heed to the old adage that “an ounce of prevention is worth a pound of cure” than await the development of symptoms that may have caused some permanent injury before correction was instituted.

Such a suggestion follows very well in the trend of modern preventive medicine and many anomalies would be discovered that would be surprising and which would lead undoubtedly to the prevention of many permanent or chronic ailments, that would otherwise be endured for years because no ocular suggestion was present. Of course it is hardly necessary to say that every case examined in such a routine manner and showing some refractive error, would not necessarily have to wear glasses. It is comparatively seldom that we can examine a pair of eyes and find them perfect as far as the refraction is concerned, but experience will generally suggest the correction required, whether it be glasses or otherwise.

Even among present-day medical students is it necessary to impress upon them that perfect vision and the absence of headaches do not contra-indicate the eyes as a possible cause of re-

curring styes and a chronic inflammation of the lid edges. Just recently I examined the eyes of one of our fourth-year men, who had gone through the entire course with an annoying and disfiguring blepharitis, but who had perfect vision and no headaches and because of which he had not thought of his eyes as a cause. A little local treatment and the correction of a moderate amount of hyperopia made a decided improvement almost immediately.

In making an examination of the eyes to find refractive errors, we must insist upon a thorough examination and it is impossible to accomplish such with anything like scientific precision, without using a cycloplegic, a drug that will quiet the ciliary muscle and permit of an examination when the eye is in a state of rest. The great majority of refractive errors are due to hyperopia or hyperopic astigmatism or a combination of the two and the eye can often overcome these errors so that perfect vision is obtained but at the expense of headaches or some reflex disturbance and in doing so over-exercises the ciliary muscle which becomes hypertrophied and of course is a stronger indication for the need of drugs to quiet the muscle. Making a casual examination in a patient, with no external manifestations, vision normal and no headaches, the case would very likely be passed as not requiring further eye investigation.

DISCUSSION.

DR. JOHN J. MCKENNA, Philadelphia: I feel that the matter of compulsory refraction has gained a great deal since the new legislation with regard to the compensation of employees has been adopted. The fact that children may grow up into adult life without knowing that their eyes are defective is something that can be overcome by compulsory refraction of school children. I saw, not long ago, several adults who had in one eye no vision worth speaking of. They could distinguish objects at a great distance, but nothing clearly; and in one or two of the four cases the patients did not know that their vision was defective until the examination was suggested. On account of this new legislation, the difficulty in obtaining employment will be so great that it will be hard for such persons to get positions. Firms will not employ individuals who have defective vision, and I think that this is certainly a step in the direction of real preparedness, as it will protect the health and vision of the persons who come under our care, and prevent them from becoming wards of the State in the future.

Another thing that occurs to me in regard to refraction is the possibility of preventing the development of such things as pulmonary tuberculosis. The child whose eyes require the assistance of glasses will stoop over the desk at school, and over the table at home, when reading books or writing; and this will cause a contraction of the muscles of the chest, so that the lungs will not have their proper amount of expansion. The consequence of this, especially in children predisposed to tuberculosis, will be that they will readily fall victims to this insidious disease.

I have seen Dr. Tindall prescribe glasses in cases of chorea. One of these, in particular, had resisted medicinal treatment for some time. I, myself, had sent this patient to him; and after the proper correction had been applied, the attacks of chorea became less frequent and fewer in number. Indeed, I have been informed by this child's mother that during the last few years there have not been any attacks of that kind. I feel that this matter cannot be emphasized too strongly. While people may object to such interference with their supposed rights as will compel them to have the eyes of their children examined for such errors of refraction, I believe, from my experience and observation, that it is an absolute necessity that children, especially those of the poor, should have this attended to.

DR. I. D. METZGER, Pittsburgh: I am perfectly in harmony with anything that compels people to do the right thing. That is what we have our laws for; and if people do not see far enough ahead to care for their children, from their own foolishness, they certainly should be compelled to do so by the State or some authority. Therefore, I am in sympathy with compulsory refraction, or compulsory care of the eyes in any form, but I should like to sound the note of warning that I tried to sound yesterday, that we, as eye men, should endeavor to teach the general physicians to urge their patrons not to wait for six or seven years for this inspection of their children's eyes. All of you know that by that time there may develop amblyopic conditions that can never be remedied. We should try to secure general education among our patrons to the extent that they will systematically have examined every child's eyes not later than the age of three or four years, so that it may be possible for us to pick up those errors of refraction of which they are ignorant, and which may mean much to the child later. We can then have a chance to develop the child's vision. I think that people generally want to do the right thing by their children, and will have the child's

eyes examined if they have the slightest intimation that there is a defect there; but they do not realize that they are procrastinating and losing valuable time. We should insist on the fact that there should be a systematic examination of every child's eyes. Then, if there is no trouble found, all the better; and if there is, the age of three or four is not too early to begin to correct it.

DR. HOWARD TERRY, JR., Phoenixville: We generally, I think, overlook the condition that Dr. Tindall has brought out, the effect of the eye on associated organs. I had a man come to me for indigestion, which was apparently due to hyperchlorhydria. I gave him *nux vomica*, or something else. The next time I saw him I noticed a slight squint, and on questioning him I found some evidence of visual difficulty. I referred him to the doctor, who called me up later on the telephone, and stated that he thought that the trouble was due to a small error of refraction. He prescribed glasses, and the man did not have to take any more medicine for many months. This case illustrates the necessity of observation of the eye by the general practitioner.

DR. J. W. STITZEL, Hollidaysburg: The question of this compensation law has come up, and I should like to speak of a matter that suggests itself to me. Of course, compulsory refraction comes under this Act, because the law requires it. Indeed, one of the first tests is for vision, which must be 20-30 at least. But what are you going to do in cases in which we have men, such as we have in every community, who, for twenty-five cents, will sign a certificate that the vision is all right? That is not overdrawn. We have a man in our community who does this, and people who want to evade the law will go to him, and he will give them a certificate. He has a license to practice medicine in the State of Pennsylvania. I know of several instances in which persons have gone to him, and in at least two of these instances the patient had not even a vision of 20-100. He probably does not even look at their eyes, but simply writes out the certificate.

Another point I wish to refer to is the examination of the eyes of children in early life. We know that the eyes are developed before a certain period, and the damage is apt to be done before we see them. Some physicians are not able to recognize the trouble, even when they look into the eye. The family physician often says, "The child is too young to have its eyes examined. Young children know very little

about the letters of the alphabet, and you had better wait until the child is about eight years old." How are we going to get around it when there is such a general impression among physicians that, as the children must look at test-cards, they cannot be examined until they know their letters? We should educate the general practitioners to know that this is not necessary. You can look at a child's eyes under a cycloplegic, and tell whether or not they are defective. We must educate the general practitioners to know something more about eye work than merely looking at test cards, and then we shall be able to get the patients at a time when we can do them some good.

DR. H. W. CHAMPLIN, Towanda: Young children may have a considerable degree of hyperopia, which may lessen as they grow older. When this is found in each eye, with no considerable degree of astigmatism, I do not think that we should correct it. Examination is just as urgent, however, for all that. Many children with a good eye and one that is quite defective go blind, because they do not employ the eye that is handicapped, and it goes blind from non-use and the other eye is overstrained. But not all children with a considerable defect of latent hyperopia need glasses. Dr. Stevens worked that out some years ago.

DR. I. D. METZGER, Pittsburgh: It is true that the hyperopia grows less, but that is the beginning of myopia. If you can stop it, you are fortunate; but if you do not overcome the hyperopia you may have the case go into a progressive myopia, which continues in after life.

DR. TINDALL, closing: The subject is a very serious one, and one that is difficult to handle. We all have a certain amount of pride in the appearance of our children, and do not like to see them wearing glasses, and many of us, ourselves, do not examine the eyes of our children, because they present no actual symptoms. But we do not know the conditions present, and the reason that we do not find out is because we do not like to have the children wear glasses. If that feeling is present to a certain extent with us, how much more is it with the laity? We know the facts. Statistics prove them. I know that it is only a matter of education.

SURGERY OF THE GALL-BLADDER.

BY

DESIDERIO ROMAN, A.M., M.D., F.A.C.S., CHIEF SURGEON, ST.
LUKE'S HOSPITAL, PHILADELPHIA.(Read before the Homoeopathic Medical Society of the County of Philadelphia,
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IN presenting, as a topic for discussion, the "Surgery of the Gall-Bladder," I am impressed by what I believe my first duty, as your guest, to approach the subject in such a way as to meet the interest of the greatest number among my hosts, rather than to deal too exclusively on surgical technicalities which might appeal only to my surgical colleagues present here to-night. I therefore desire to enunciate my purpose to touch briefly upon theoretical views regarding etiology in lesions of the gall-bladder and to treat, in a general way the accepted facts which clinical experience has established as dependable knowledge in gall-bladder disease.

One cannot but recognize that in the last twenty years the notable advancement made in the knowledge, diagnosis and treatment of gall-bladder lesions, have been attained through surgery and its associated means of clinical research and that, in contrast, the obscurity in the literature of biliary disturbances prior to the impulse of modern surgery, was due to the scant teachings of the post mortem table.

What is true of the lesions of the liver and gall-bladder is strikingly true of the lesions of the appendix, of gastro and duodenal ulcer and pancreatic disease, all of which have been brought to light at the operating table.

The trespass of surgical initiative upon the domain of medicine should be accepted by the internist as the advantage of living-pathology upon necropsy rather than as an attempt on the part of the surgical specialist to wander beyond his limitations. The surgeon is ever ready to abandon any operative procedure which, when thoroughly tried, has proved a failure or fallen short of his aim, thus, visceral decapsulations and certain visceroptosis in vogue a few years ago are now less popular. Edebohl's renal decapsulation for Bright's and the Talma-Morrison switching of the return venous flow in portal insufficiency were surgical efforts designed to cope with organic le-

sions which the internist had long relegated to the group of the incurable diseases. Whether by plastic, by transplant, or by imitating Nature's *modus operandi*, or by promoting circulatory increase as a barrier to morbid process, or by facilitating absorption and elimination; by drainage or removal of toxic products and irritants, etc., the surgeon endeavors only to assist nature, and in this endeavor he co-operates in harmony with the modern internist who is fast discarding pharmaceutical means for hygiene, prophylaxis, sera and autogenous products to increase Nature's resistance against disease.

A summary study of certain factors in the histories, operative findings and results in my own experience with over two thousand operations for lesions of the liver, gall-bladder, bile channels and pancreas, covering a period of twenty-two years, has served me, in conjunction with the abundant literature of the present day, in formulating a judgment as regards the surgical aspect of gall-bladder disease.

Both the internist and the surgeon, look into the etiology of gall-bladder lesions with equal interest, in so far as the same conditions or factors which determine the origin of gall-bladder disease, in any given case, may play an all-important role in the cure, or possible recurrence after operation, specially so in cholelithiasis. When infection from nearby or from remote source, is the etiologic factor, whether reaching the bile channels through the blood or lymphatic streams or by extension and contiguity of structure from nearby inflammatory foci, the septic process in the bile channels, whether mild or of high grade, will sooner or later determine a lesion in the gall-bladder and bile ducts essentially and, from beginning to end, surgical; and I believe that we have no more right to consider any stage of bile channel infection as a medical lesion or as a medical stage of an ultimately surgical condition than we have to regard any stage of appendiceal infection and inflammation as purely medical. The only medical aspect of true appendiceal inflammation is the "usual history of constipation" preceding the inflammatory stage. This argument is the more forceful in regard to infections in the bile channels, since their recognition is far more difficult and more obscure than those of the appendix.

An unrecognized appendiceal inflammation ends in tragedy, and urgent surgery comes to the rescue with a large percentage of cures, and those patients who recover enjoy afterwards a

general average of health, but the unrecognized biliary infections lead to greater damage in neighboring structures and viscera, such as the pancreas, before cardinal symptoms reveal the urgency of surgical intervention.

A septic gall-bladder, therefore, once recognized, should come under surgical supervision, when it shall be incumbent upon the surgeon the selection of the most auspicious moment, along clear-cut surgical guides, to secure the minimum operative risk.

How shall we attain the earliest possible knowledge that the gall-bladder is the seat of disease; how shall we come to an early diagnosis? Much in the same manner in which the evolution of clinical experience and publicity have, in the last twenty-five years, so disseminated and popularized the knowledge of certain common signs of appendicitis and to such a practical degree that, if a physician nowadays is not alert in diagnosing a case of appendicitis, the patient will.

The same light that leads a woman to apprehend cancer on the slightest pain or discovery of a lump in the breast, or of a bloody vaginal discharge, shall lead to the realization that pain in the upper right quadrant of the abdomen should be less and less attributed to "indigestion," "torpid liver," dyspepsia," etc., and lead more and more to a closer and earlier study of each individual case, upon a basis of differential inquiry into the most common lesions of the upper abdomen.

I beg your indulgence if I insist too long in generalizations, for I am impressed by the belief that an A B C text-book like paper, with quotations, statistics and bibliography would be irksome and much out of place here.

You are all thoroughly familiar with the accepted and most plausible etiologic factors in gall-bladder disease from a simple extension of a catarrhal process to most any form of systemic or focal infection. You are also clearly informed on the pathological histology in the catarrhal and septic types of inflammation of the gall-bladder and with the degree of vulnerability of the structure of the gall-bladder to either primary or secondary malignancy.

The commoner lesions and their clinical evidence and symptom-complex are the most attractive problems for us to study with a view to the earliest possible diagnosis and relief.

Since the earliest history of gall-bladder surgery, the case history and physical signs have played the most important role

in the diagnosis of these lesions, and while no symptoms or physical signs can be considered as pathognomonic and positively diagnostic, not even in cholelithiasis, which condition is usually characterized by a classic and paroxysmal group of symptoms, we all know how frequently we encounter, in abdominal surgery, gall-stones without symptoms and symptoms of, without gall-stones.

With all this uncertainty, however, there is probably no other surgical condition in which the case history is more essential to a diagnostic conclusion, than in gall-bladder disease. Physical signs may fail to give us assurance, all clinical investigations such as breakfast test meal, leucocyte and differential counts and radiography, may yield no light, but a well obtained anamnesis is often the only reliable data on which to base a presumptive diagnosis and the only argument in favor of surgical intervention.

I am reminded most vividly of two recent cases of cholelithiasis in which I operated in face of the most negative clinical pictures. Let me give you briefly these histories:

Female; age 38; single. Never had severe pain, no nausea or vomiting; no pain; in reality only a feeling of fulness and distress in the epigastrium. The distress never amounted to either dull or acute pain, and it was experienced by the patient at irregular hours, in no wise in relation to meal time; no periodicity, no paroxysm, no jaundice. The physical signs elicited slight soreness, on very deep palpation only, a half inch away from the right costal border in the epigastrium. Palpation over the rectus border and the Mayo-Robson point negative. Murphy's deep palpation percussion negative.

One week's observation in the hospital ward, during which time stool, urine and blood analysis, test meal and radiography yielded no clue to a definite diagnostic opinion. A further inquiry into the history with cross-examination as to the validity of positive and negative symptoms previously obtained brought out the fact that in her immediate family two sisters, her mother and one aunt have been operated upon for gall-stones, and that, although she never had suffered pain as her relatives had, she feared that she, likewise, had gall-stones, for her digestion had been poor as far back as she could remember. On this history of long standing digestive disturbance and the absence of positive indications of gastric or duodenal lesion, or of nephroptosis with its attending reflex gastric neurosis or of

renal calculus, we ventured a tentative diagnosis of cholecystitis with possible calculi and advised operative interference, which was cheerfully accepted on the part of the patient, because of her fear that she, like other members of her family, had gall-stones. On our part, operative intervention was contemplated as an exploratory measure, fully justified by the fact that the patient had been for years in the hands of a number of physicians; had tried medicinal treatment without benefit; tacitly, however, we strongly suspected cholelithiasis. Operation revealed a small, white, thick walled gall-bladder, containing tarry bile, mucous and twenty-two fascetted calculi. Before leaving this case, let me bring out a point of comparative interest that while the mother, two sisters and the aunt were multipara, the patient is a maiden-lady of 38. Clinically we find gall-bladder disease, specially cholelithiasis, most frequently in women who have borne children.

The second case history is as follows:

Mrs. J. K. H.; age 44. With fermentative dyspepsia of long standing, flatulence, epigastric distress and some pain from half to one hour after eating, and lasting two to three hours, nausea and at times vomiting with bile regurgitation; pain, at times sharp, radiating posteriorly to the back under angle of the scapula on the right side; no jaundice; had been examined and treated by a number of physicians without relief. Had spent ten days under observation in one of our largest and foremost hospitals in this city, in charge of one of the shrewdest, ablest and most aggressive of surgeons, passed through his hands and was discharged as a case of gastric neurosis and referred back for medical treatment. Obtaining no relief, she made several changes in family physician after her discharge from the hospital and eventually she was referred to me for surgical opinion.

Her history, the location of the pain and intervals after a meal resembled that of pyloric or duodenal ulcer, but laboratory findings and radiography did not confirm such conclusion. There were no renal symptoms, physical signs of, or urinary findings to be considered. Operation demonstrated two large olive-shaped cholesterine stones, the type of stones which in accord with the investigations of Bacmeister and Aschoff form in the gall-bladder by bile stagnation and sedimentation without preceding bacterial infection (aseptic stones if you please).

In the two cases just cited we see typified a clinical picture

which, at times, renders a diagnosis of gall-bladder lesion extremely difficult.

In the first case, the history was rather obscure and the physical signs undependable, while operation was justifiable on the ground of long-continued distress and gastric disorder without relief under medical treatment.

The second history brings forth the lesson that case histories, as obtained by a hospital interne and the laboratory reports in the clinical study of a case, may prove misleading even in a case like this with clear landmarks for a diagnostic judgment. With the least depreciation of laboratory findings and other means of clinical research which I believe often times essential in arriving at a diagnosis by exclusion, in my personal experience, a carefully obtained history, concise, clear and accurate has been of greater aid in the diagnosis of gall-bladder disease than any other diagnostic data. The interrogation of a patient is a matter of experience and requires quick grasp of the intellectual and personal standards of the patient, for when patients make synonyms of soreness and pain, stomach and abdomen, nausea and sickness, the anamnesis has no trustworthy diagnostic value and leads to erroneous conclusions. At the time the examination is made the patient may not be suffering from the "head-liners" or prominent symptoms which he describes with special emphasis; and here inaccuracy and exaggeration creep in and the diagnostician has to pass judgment upon the credibility and value of the data thus obtained. Subsequent and carefully conducted cross-examination may obscure the first diagnostic sketch and bring out clearly the sequence of symptoms, and the physical signs upon which a logical diagnostic conclusion can be built.

If these difficulties are encountered even when gall-stones are actually present in the gall-bladder, how much more intricate and perplexing is it to make a diagnosis of chronic cholecystitis without stones, when sign and symptoms are less prominent. Furthermore, these difficulties and uncertainties are experienced even when the abdomen is opened; for a gall-bladder with much affected mucous membrane, may show little or no change in its external appearance and condition of its outer coats.

In determining the source of infection of the gall-bladder, investigators have proven that it may be either ascending or

descending, and that the organisms are those usually found under normal conditions in the intestinal tract.

In order to prove the descending type of infection Kraus was able, by intravenous injection of bacteria, to demonstrate their presence in the hepatic duct within thirteen minutes after the injection.

The ascending infections we frequently confirm by cultures made from gall-bladder contents in the course of an operation, which often show growths of intestinal organisms.

We know, too, that infections may and do occur without the presence of gall-stones as distinct septic cholecystitis, or as the result of pneumonia, erysipelas, influenza, tonsilitis, etc.

Infection in the gall-bladder may lead to various changes; it may be rapid in its course and virulence, causing enormous distention, or the severity of the infection lead to gangrene and perforation, causing localized or general peritonitis. Here we have the usual acute abdominal symptoms, pain, referred to the right upper abdomen, marked tenderness, localized rigidity, and perhaps tumefaction, but without biliary colic.

The most frequent symptom of gall-stone disease is biliary colic, and it is of the utmost importance to bring out beyond all doubt whether or not the patient has actually experienced a distinct attack colicky and paroxysmal in type. The production of biliary colic depends upon the free entrance of bile into the gall-bladder with sudden temporary interference in its discharge into the common duct by the stoppage, either by a rolling stone or other obstruction.

The varying pathological conditions which the surgeon meets with in lesions of the biliary channels account, in a measure, for the perplexing clinical picture of atypical cases.

While gall-stones are usually formed in the gall-bladder, they may also develop anywhere in the bile channels. According to Adami, "gall-stones are most frequently found in the gall-bladder, next in frequency in the cystic duct, then the common duct, and less frequently in the hepatic duct."

When the gall-bladder becomes entirely filled with gall-stones, bile sand, or inspissated bile and mucous, the patient may never experience biliary colic. It is the rolling stone or the movable obstructions that usually cause the colic.

Infections with gall-stones, or without, which are allowed to advance until the liver, pancreas and neighboring lymphatic glands become involved in the infection, with adhesions and

structural changes, the operative mortality becomes high by virtue of delay and collateral complications and extension of the septic process, so that the gravity of surgical intervention is entirely dependent on and in direct ratio to the early or late operation.

Bile channel infection from appendiceal source, and pancreatic changes in connection with infections of the biliary tract are well established facts. Our knowledge of the chronicity of biliary disease, the anatomical relationship of appendiceal and intestinal infections to the bile channels, and the metastatic routes to the pancreas, links into close interdependence three pathologic entities which should be borne in mind by the general practitioner, by the family physician, in dealing even with the mildest or most transient symptoms referred to the upper abdomen,—providing that these symptoms show a tendency to persistence or to recurrence.

Let us now devote a few words to the consideration of neoplastic lesions of the gall-bladder, specially as further argument against procrastination and ultra conservatism for cancer of the gall-bladder can be held out to physicians and to the laity as an unpardonable result of neglect of cases which during the best years of their lives manifested gross physical and symptomatic evidence of progressive biliary disorder.

Körte, in discussing the relation of cancer to gall-stones, established three groups of cases: "The first included patients who for years had symptoms of gall-stones which finally merged into those suggestive of cancer. In the second group he placed those who having had symptoms of gall-stones, presented a long period of quiescence, after which came the manifestations of cancer. In the third group there had been no previous symptoms of gall-stones whatsoever."

While it has become more and more clear to us that predisposition and pre-cancerous stage are factors, and that the percentage of cancer as a result of gall-stones is relatively small, yet we cannot eliminate a long and persistent irritant within a mucous cavity as a potent factor in cancer of the biliary tract.

If fear of cancer will induce physicians and patients to accept operative relief in cases in which gall-bladder disease is known to exist, it would be a blessing to suffering humanity if this fear was more generally felt.

If an early operation in the early stages of gall-bladder lesion confronts the surgeon with doubts as to his judgment be-

cause of the absence of gross evidence of gall-bladder disease, and his exploring hand finds no enlarged lymphatic chain along the cystic and common ducts, no evidence of cholecystitis and pancreatitis, no adhesions, no signs of pyloric or duodenal ulcer he may not yet be in error, for the gall-bladder mucosa may only be diseased in some small area, and drainage be justified and a cure attained. Aside from the local damage in unrecognized or in neglected bile channel disease, we must not lose sight of the remote, metastatic, systemic and reflex damage directly brought about by the focal infection in gall-bladder disease.

One can go on for hours discussing the manifold clinical experiences in the surgery of gall-bladder, but I have already taken more of your time than I intended, and I will close with a brief comment upon the operation *per se*. The incision or manner of approaching the field of operation is unimportant; it is a matter of individual preference with the operator; he seeks comfort and facility, and is guided by certain rules in topographical anatomy; whether he chooses the Mayo-Robson, Bevan, Kocher, Kehr or Perthes lines of abdominal incision, he will be governed by his personal experience. Personally, Kehr's bayonet incision has given me, with slight modifications, ample exposure and facility in cholecystotomy, cholecystectomy and choledocostomy; although the vertical incision, combined with the transverse according to need, may be preferable. In fact, the vertical incision with preliminary exploration of the operative difficulties to be dealt with will suggest to the surgeon the best plan of incision extension, whether upwards and inward, after Mayo-Robson, or the more angular "Welenschnitt" of Kehr.

For many years we were content, in operations upon the gall-bladder, with cholecystotomy, vesico-pexy and drainage; but persistent biliary fistula, sepsis and recurrence of gall-stone formation soon brought about drainage without anchoring the gall-bladder and finally cholecystectomy as a more surgical procedure and to do away with the shortcomings of cholecystotomy. To-day we have clean cut indications for the choice of cholecystotomy or cholecystectomy in any given case, with the odds in favor of cholecystectomy. I perform cholecystectomy whenever feasible inside a margin of safety, it being a better judgment in extreme sepsis and patient a poor risk to conduct the operation in two tempo (first cholecystotomy and

then ectomy) than to jeopardize his chances by tearing protective adhesions, opening lymph-spaces and inviting hemorrhage from the liver or from inflammatory infiltrations.

In conclusion, I would make the following pleas:

1. To regard with suspicion all symptoms of the upper abdomen which have not yielded in a short time to diet and medical treatment and to enlighten the laity as to the significance of certain cardinal symptoms; as we have in pains in the right iliac-fossa, the pelvic region, the breasts, etc.

2. A plea for painstaking and thoroughness in obtaining histories, as essential to early diagnosis.

3. Early surgical intervention in gall-bladder disease, because of its intrinsic indications and as a prophylactic step against extension to other organs which inevitably follows in neglected cases.

THE SPIRIT OF "OLD HAHNEMANN."

BY

WILLIAM WEED VAN BAUN, M.D., PHILADELPHIA.

Excerpt from an Address Delivered at the Opening Exercises of the Sixty-ninth Academic Year of Hahnemann Medical College, Philadelphia, October 2, 1916.

"OLD HAHNEMANN" is the term of affection used by the 3,064 graduates of Hahnemann Medical College, of Philadelphia, some 1,745 of whom are still living, active, energetic, aggressive, all ardent advocates of modern scientific methods and of the art of Homœopathy. They are held together by an invisible bond of fellowship: The Spirit of "Old Hahnemann," which is mutually helpful and inspiring. It is a stimulating and pleasurable comradeship, arising from old associations and a similarity of taste and pursuit, which renders the society of each a mutual pleasure. Transient in nature, as it must be, it is always renewed with fresh zest at every opportunity. They meet, and when hand clasps hand, although years may have elapsed, the spirit of Old Hahnemann's good comradeship animates them both, and they gladly unite in whatever can make it practical. It is the source of a great wealth of happiness with our old graduates. It is human, but nevertheless unfortunate, that some of us who rub shoulder to shoulder at home, lose half the joy of life, by having no comradeship, proceeding

from a thoughtlessness or a selfishness which shuts us out from the interests of one another.

To absorb the real spirit of "Old Hahnemann" you must be good comrades. You cannot all be friends, this tie is more exacting, but you can be comrades, and remember, a good comrade is always ready to double our joys and to lessen our sorrows, by his cheering presence and warm sympathy.

"Old Hahnemann," to-night, starts her sixty-ninth academic year. Our Alma Mater is hoary with honor and tradition. She has always been a pioneer and pathfinder. Now, she is the pace-maker, forging ahead, virile and aggressive. She is the mother of all colleges of homœopathy,—she has had twenty or more daughters. Eight still live, some of them influential departments of State universities.

"Old Hahnemann's prestige and premier position is unchallenged. This brings weighty responsibility, and you must all maintain her traditions. Her graduates have always been live wires in the profession. They have been blessed with the quality of mind, the sustained enthusiasm, and the brilliant attainments that insure success and leadership, and their ever loyal support and team work, for the benefit and advancement of homœopathy and her institutions has made them marked men.

"Old Hahnemann" has always maintained the highest standard of equipment and teaching. This could not be otherwise in the hands of a succession of deans like Hering, Guernsey, the Thomas's—father and son, Dudley, Northrop, Van Lennep and Pearson. . . . After repeated critical inspections, the President of the Bureau of Medical Education and Licensure of Pennsylvania, an old school physician, said: "The course at Hahnemann and the methods of teaching have no superior in the State, or even in the country, and few equals."

You students are blessed by having a Dean, to whom you can turn with confidence for counsel, sympathy and help. He is young himself. He is carrying a great burden in guarding, guiding and harmonizing our conflicting interests. Energetic, vigorous, tireless, he is at his post constantly, always ready and equal to the emergency. Ambitious for your success, you will find him righteous, sincere at heart and sane of mind.

The Faculty is back of him to a man. . . . We cannot expect to all see alike, but we can work together for our common purpose—our Alma Mater and our profession.

HISTORY.

Are you interested in knowing what became of the disappearing daughters of "Old Hahnemann"? If so, let me be historical and statistical for a few minutes. The pioneer of homœopathy in America was Dr. Hans Burch Gram, at New York City, in 1825. His father was a Dane and his mother an American, a Boston woman. He was born at Boston. He was a skilled surgeon and a finely educated physician. He received his training in Denmark, and his knowledge of Hahnemann and homœopathy while in Europe. His first convert was Dr. John Franklin Gray, of New York City, in 1827, who became one of the most dominant figures in homœopathy for fifty years. Homœopathy was introduced to Philadelphia in 1829 by Dr. Carl Ihm, a native of Frankfurt-on-the-Main, and a graduate of Wurzburg, Bavaria. He acquired his knowledge of homœopathy from Hahnemann. Dr. Constantine Hering, the founder of "Old Hahnemann," and the real father of homœopathy in America, arrived at Philadelphia, January, 1833. This was the beginning. The next great epoch was on the 10th day of April, 1844,—the eighty-ninth anniversary of the birth of the illustrious Hahnemann, when a brilliant coterie of homœopathic physicians convened at New York City, with Dr. Constantine Hering as President, and organized with forty members the "American Institute of Homœopathy." This is the oldest National Medical Association in the Americas. The growth of homœopathy in America was slow from 1825 to 1844. At that date there were less than three hundred homœopathic physicians. There were no colleges or hospitals, and our literature consisted of two journals devoted to the interests of homœopathy and homœopathic therapeutics and a few imported books on *Materia Medica*.

"Old Hahnemann" was incorporated April 8th, 1848, and opened its doors for instruction in the fall of that year at Philadelphia. Things now began to move and we reached the zenith of numbers in 1901. Then there were 22 colleges, two of which were not recognized by the American Institute of Homœopathy. There were 340 hospitals, dispensaries and institutions having properties and endowments, aggregating several million dollars. The American Institute of Homœopathy had increased its membership from forty to two thousand; to-day it has three thousand. Our literature had kept pace. There

were 32 journals, and books without number, covering the whole domain of medicine by writers who practiced and taught the law of similars. The 300 physicians had increased to 15,000. The twenty colleges had over 1,500 students and 350 graduated in 1901. To-day we have nine colleges, with 736 students and 161 graduates in 1916. We have 184 hospitals and sanatoria with a valuation exceeding \$39,000,000, and 18 medical journals.

In 1901 "Old Hahnemann" had 269 students and 68 graduates. In our 1915-1916 session, there were 99 students, not including the pre-medical men, and 23 graduates on June 1st, 1916.

What happened? What crisis were we passing through? Why the growing chorus of our enemies from without and within that we must close our doors?

To those in control, it was reassuring and comforting to know that we were not alone in this experience. The Eclectic and Allopathic Schools were going through the same scourge.

In 1901 there were 162 medical colleges in the United States. Now there are 95, and more are going to disappear. In 1901 there were 28,142 students; in 1915, 14,891. In 1901 the graduates in medicine numbered 5,600. In 1915 the graduates were 3,536.

Nineteen hundred and one was the high water mark of the proprietary or joint stock company medical colleges. Less than ten had university affiliations. They were of all grades, from the highest to the lowest conceivable.

In 1880 there was no entrance requirement, excepting a registration fee of \$5.00, and this was remitted by many. Some of them attempted a course by correspondence and some were criminal holding charters but having no equipment or teaching facilities, and selling their diplomas for twenty-five dollars up.

The abuse of the diploma became intolerable, and a great movement was inaugurated to raise the standard of medical education in America. The first step was in 1880, when all physicians were required to register their diplomas. Then the right to practice medicine was taken from the diploma, and a State license was required after an examination by boards of examiners, appointed by the States.

The entrance requirements and the course of instruction have been steadily and persistently raised to a standard that is now second to none in the world. And in the A Class of medi-

cal colleges you will find "Old Hahnemann" has a recognized place among the very highest, and you are members of an institution of high repute. The result of all this struggle has been that only the strong institutions have withstood the storm. Those inherently weak have gone by the board, and with them the disappearing daughters of "Old Hahnemann."

Six years ago the future of "Old Hahnemann" was gloomy enough. We faced an adverse and unjust report from the Carnegie Foundation, a financial deficit and the smallest class in the history of the institution. How did we escape the great moral wrong and economic crime of closing our doors?

The man who had the learning and wisdom to discern and interpret the signs and needs of the time; the man who had the courage and power to carry our struggle for existence to victory; the man who led us hopefully through four long, weary, anxious years and met with untiring energy and sustained enthusiasm the height of the agitation in medical teaching and pulled us through successfully, enlarging our curriculum and obtaining the necessary equipment at a cost of over \$50,000, so as to conform with the most advanced medical school in the country was Dean Van Lennep. We are apt to forget this.

The tide has turned for "Old Hahnemann," and with the advent of Dean Pearson's arduous and successful campaign for students, the first year resulting in 33 Freshmen and 55 Pre-Medical men, and a united and harmonious faculty, our future is assured. The sacrifice and service of the last six years will not be in vain.

THE 1916-1917 SESSION.

Students of the 1916-1917 session, you have voluntarily become part of an Alma Mater with a glorious history, which takes the trenchant pen of the scholarly Bradford to rightly exploit, and it is up to you to so conduct yourselves that her traditions and high repute shall be maintained in perpetuity, with ever-increasing honor and renown, and here to-night, you should highly resolve to dedicate and consecrate yourselves to an ever-increasing effort during the span of your lives to continue her pre-eminence and greatness in useful service to mankind.

This can only be done by right living. What should be your attitude toward life? How are you to live it? What is right

living? Let me answer in the quaint language of William Penn, the founder of this Commonwealth:

"There is a great God and Power, that hath made the world and all things therein, to whom you and I and all people owe their being and well-being, and to whom you and I must one day give an account for all that we do in this world. This great God hath written His law in our hearts, by which we are taught and commanded to love and help and do good to one another, and not to do harm and mischief to one another."

In other words, you are to have sympathy and understanding, avoid selfishness and choose righteousness and peace, rather than sin and danger.

What are you here for? You are here, with the assistance of the Faculty, to train and fit yourselves as physicians and to gain a special knowledge of homœopathy, a therapeutic specialty in the great field of medicine,—a natural law of cure based upon the formula "*similia similibus curentur*." Hahnemann, himself, tells us: "In order to cure gently, quickly, unfailingly and permanently, select in every case of disease, a medicine capable of calling forth by itself, an affection similar to that which it is intended to cure."

Note, please, you must do this yourself. You must make the most of yourself, so that you can do the most for others. You must take hold with the proper spirit and enthusiasm, and work. Work hard, and love work for work's sake. Your pathway will not be as difficult as Hahnemann's. He blazed the way for us. He accepted solitude, poverty, scorn and derision of the gross and ignorant and the hostility of educated society. The scholar must be free,—free, brave and independent. He must get the truth. He must go to the heart of things and form what Lowell calls "an intellectual conscience." The truth is neither new nor old; it is the same yesterday, to-day and forever. So get the truth and hold fast to it at all hazards.

Cultivate the Spirit of Youth! Cherish and renew your youthful spirit; grasp wisdom; be master of yourself; be the visible embodiment of your ideal; be simple of thought and speech; courageous of heart and mind, and strong enough to be tender, wise enough both to dream and act. With experience, there comes a time when we see all the problems of life, with great clearness and the acid test of our character is at hand. When your trial comes, be sure to maintain your en-

thusiasm, the freshness of your mind and your capacity of enjoyment. Age is largely a matter of feeling and not of years, and you can long retain the elasticity of your youth.

We are beginning to realize that in America, we are losing something of the firmness and stability, which enables each man to stand alone, bravely facing his own future, and enduring his own hardships. We have lowered the standard of self-reliance of our Cavalier and Puritan ancestors. Cultivate self-reliance! Start right and keep your punch. This you cannot do, unless you are physically fit, and spiritually and mentally sound. Clean and right living, like virtue, has its own reward. If you are to make good in this day of high efficiency, you must pay the price. You should pay, pay willingly, joyously, for all of life's great adventure is before you. To do so, will honor your hearts and minds and strengthen the vigor of your bodies, and your Faculty will respond with sympathy and encouragement and will look forward with confidence and hope to the day of your graduation. We want the skilled physician and the gentleman whose moral force exerted towards righteousness, makes self respect and fits him to serve mankind.

Cultivate the writing habit early! You may be disappointed at first. Persevere, and you will be rewarded by lucidity, directness and vigor in style, structure and manner of presentation. It is all a matter of growth and practice. Don't let mistakes depress you and strangle your efforts, simply don't repeat the same mistakes.

Cultivate thrift, for thrift's sake! In America, we are the least provident of all people. I wish to caution you that physicians are proverbially improvident. Indeed, they are wasteful. Take warning, learn to save, act accordingly and give no heed to the counsel of expediency or weakness. It will warp your judgment and lead to your destruction.

You will owe allegiance and service to your County, State and National organizations. The one you should join first, the year you graduate, is the American Institute of Homœopathy, the oldest National Medical Association in America. You will need its help, defense and sustaining strength, and the Institute must have your hearty support and co-operation. This National organization is worthy of your confidence, for seventy-three years it has stood sponsor for the profession and fought successfully its battles with tenacity, valor and resourcefulness. During its long trusteeship, it has always been ready and pre-

pared, and has upheld the honor, protected the interests, maintained the rights and secured the welfare of homœopathy and her institutions.

Finally, loyalty does not allow growling or criticism of those in authority. Whatever our personal differences may be, we demand of our Trustees, our Faculty, our Alumni and of you, loyalty of word and deed for our Alma Mater.

We expect your five years at "Old Hahnemann" and your hospital service to be a school of experience to develop leaders in our profession. You must get a groundwork of mental training, which will tell. You are to make yourselves valuable, both as physicians and citizens. Dwell in unity, peace and brotherhood; keep your faith in life, faith in yourselves, and faith in God, and your life's adventure at "Old Hahnemann" will be worth while.

A COMMUNICATION.

TO THE HOMŒOPATHIC MEDICAL PROFESSION OF PENNSYLVANIA:

DEAR BROTHERS:—

Since my introduction into the office as president of the Homœopathic Medical Society of Pennsylvania nothing aggressive has been attempted in the way of active outside work. The field is large and fertile,—capable through careful management, and earnest endeavor of producing a large and abundant harvest for the enlargement, enlightenment and progress of our school of medicine.

When I look over the State and locate men who are laboring in their respective fields, many of them apparently far away from medical centers of learning and from hospital affiliations, my heart goes out to them in sympathy. These are the men our State Society should gather in, encourage and assist. They are the real heroes in the medical profession. Those who are fortunate enough to live near the medical colleges and hospitals know little or nothing of the lives or work of those who are more or less isolated. To those who are scattered over the State without any local society affiliation, I would earnestly urge to try to get together and form a local society. This, of course, applies to all the doctors all over the State. Identify

yourself with your nearest medical organization. Your president is eager and ready at any time to meet you and assist you in the formation of medical organizations.

The standing committees for the following year have not yet been appointed. When they are, due notice of their appointment and personnel will appear in *THE HAHNEMANNIAN*. There will be a few changes, but in the main the committees will likely remain as they have been. Committees that have been doing good work and bringing such splendid results that we have witnessed in the past, should not be disturbed, but continued in the field with which they are most familiar.

The splendid results obtained by my predecessor, Dr. William Heimbach, of Kane, which was abundantly exemplified in the annual statement made at Reading will be hard to excel, but with the aid of my colleagues in office and the able Board of Trustees much can be done to increase the enthusiasm and vigor of the profession throughout the State.

On November 16th it was my pleasure to visit a meeting of the Delaware County Medical Society at the County Home at Lima. I found there one of the liveliest and most enthusiastic of medical societies. One of the best things in a medical society is a live, energetic secretary, and that, this Society has in Dr. G. C. Webster, backed up by an able and enthusiastic president, Dr. W. W. Kennedy. I wish that every county in the State could boast of such an organization. As I visit the societies throughout the State from time to time I will endeavor to report the workings of the different medical societies through the columns of this journal. Fraternally yours,

E. A. KRUSEN, M.D.

PERTINENT FACTS REGARDING MATTERS OF IMPORTANCE TO THE HOMŒOPATHIC PROFESSION.

ISSUED BY THE EXECUTIVE COMMITTEE OF THE AMERICAN IN-
STITUTE OF HOMŒOPATHY.

In accordance with the revised Constitution and By-Laws of the American Institute of Homœopathy and the new plan of reorganization and operation adopted by the American Institute at Baltimore, the Executive Committee, consisting of J. P. Cobb, F. M. Dearborn and C. E. Sawyer, to whom the matter

of installation of the new plan was assigned, have secured a suite of eight rooms in the Marshall Field Building, Chicago, in which have been opened the administrative offices of the American Institute of Homœopathy.

The section of publication directed by Sarah M. Hobson; the accounting and recording section by the newly employed Secretary-Treasurer, T. E. Costain; the supervision section under the direction of the Executive Committee, all find commodious quarters in which to pursue their work.

With a corps of capable assistants for each division in offices with equipment with which to work efficiently and promptly, the business affairs of the American Institute of Homœopathy are now really ready to proceed.

With a definite systematized plan for the conduct and consideration of all matters pertaining to all homœopathic interests; with the centralizing of all forces, with a definite fixed purpose, with paid assistants to carry on the work, all that is now required to promote homœopathy is the hearty co-operation of the profession.

Homœopathy has been at a great disadvantage because it has had no central office in which to operate, no place from which to direct, no specific management, no fixed plan of operation. All of this is now changed and the work of the American Institute of Homœopathy will be pushed with energy and enthusiasm.

Among the matters to which especial and immediate attention will be given by the administrative department is a complete and reliable list of all homœopathic practitioners throughout the United States. We wish to know just who the active homœopaths of the country are and where they are located. We believe that it is better to have a few thousand of real workers who are ready and willing to assist than thousands of nominal members indifferent to homœopathic interests.

So it shall be our aim to enlist in the reorganization only those who are ready and in earnest in promoting things homœopathic.

No body of professional men ever had more which is worthy of presentment than the homœopathic profession, none with better prospect of accomplishment. As proof of these assertions let us take an inventory of what we have found, then we will be the better able to conclude whether the required effort is justifiable.

From the recent report of the Council on Medical Education we find in the United States there are 101 accredited homœopathic hospitals, representing 20,092 beds.

During the past fiscal year there were treated in these hospitals 109,527 hospital patients, with an average mortality rate of 4.1 per cent.

It requires annually 248 internes to properly house-staff these hospitals.

The property value of these strictly homœopathic institutions is \$36,819,452. In the out-door or dispensary departments of these institutions there were treated during the last fiscal year 287,887 patients.

In the training schools for nurses connected with the purely homœopathic institutions there were enrolled last year 1,849 pupils. In addition to this we have:

- 10 National medical societies.
- 31 State medical societies.
- 75 Local medical societies.
- 34 Medical Clubs.
- 6 Homœopathic Alumni Associations.
- 29 Homœopathic Dispensaries.
- 10 Homœopathic Colleges.
- 18 Homœopathic Journals.

And with ten thousand active practitioners throughout the country, serving an intellectual people, 35 per cent. of which employ homœopaths, it is only reasonable to assume that a business organization is necessary and only reasonable to presume that a well organized and conducted business administration will elevate medical standards, increase patronage, develop interest and force recognition.

That is all possible by a combined effort which will be brought about by federation and affiliation of all medical societies, colleges, hospitals, training schools, clubs, fraternities, and individuals. In union there is strength, and it is the determination of those in charge to bring about a hearty co-operation of the profession. This is only one of many things all ready on the way to establish homœopathy in the front rank of medical fraternities.

All can assist in this undertaking and each will become one of the direct beneficiaries. Are you ready and willing to help?

EDITORIAL

ON KEEPING IN TOUCH WITH OUR ORGANIZATIONS.

MUCH of the lack of interest on the part of individual doctors in regard to homœopathic organizations lies in the fact that the doctor is unaware of the work that our societies are doing. In former times if he attended the State Society meetings he was able to glean a few facts in regard to what was going on in the Society, but if he did not attend the meetings, he would scarcely be aware of the fact that the Society existed at all. We have made a great deal of progress in this respect in the last two or three years and at the present time particularly, our societies are making a strong effort through the medium of our journals to acquaint the profession with what is going on and solicit their active co-operation.

In the present issue of *THE HAHNEMANNIAN MONTHLY* are two important communications: one issued by the Executive Committee of the American Institute of Homœopathy, and the other by the President of the Homœopathic Medical Society of the State of Pennsylvania, which should be carefully read by every practitioner of homœopathy. There never was a time when strong organization was more essential to the homœopathic school or to the individual homœopathic practitioner than the present. During the last week two important conferences have been held at Harrisburg in regard to the Working Men's Compensation Act and State Health Insurance. Every effort is being made by physicians to secure adequate compensation under the Working Men's Compensation Act, which was entirely neglected when the Act was passed. In fact, we understand that the physicians were not consulted at all at the time this law was enacted. The question of health insurance by the State, for the purpose of securing free medical care for every person with an earning capacity of \$1,200.00 per year or less, is a matter which will seriously affect the financial income of every physician in the State and would mean the total elimination from the profession of many doctors in communities where the percentage of people earning more than twelve hundred dollars per year is small. A similar Act passed in Eng-

land three years ago caused a complete revolution in the practice of medicine in that country. Unless doctors are wide awake they will find themselves in the same situation in this country. The individual doctor can do nothing. Properly organized medical societies can do a great deal toward securing fair and adequate compensation for physicians. Should such an Act ultimately become a law do not expect the "other fellow" to look after your interests. Join your local, State and National societies, if you have not already done so, and do everything you can by your presence and active co-operation to advance the interests of your profession. G. H. W.

THE STATE SOCIETY MEETING AT READING.

It is with great pleasure that we review the fifty-third annual session of the Homœopathic Medical Society of the State of Pennsylvania which was held at Reading, Pennsylvania, on September 12th, 13th and 14th.

Under the able leadership of Dr. J. M. Heimbach, of Kane, Pennsylvania, together with the splendid results obtained by his various committees, this meeting proved as successful in all respects, if not more so, than any annual convention of State homœopaths convened in the past, and too much praise cannot be tendered the officers and committeemen for the good work accomplished.

The scientific program was one of extreme merit and profit, the entertainment provided was of an exceptionally pleasing character, and the attendance unusually large. Another very important feature, meaning much to the cause of homœopathy, was the widespread publicity given the proceedings of the convention from day to day through a special arrangement with the Associated Press, the equal of which the Society has not heretofore experienced, and which cannot help but result in immeasurable good to our cause.

Another important fact, evidenced by the results of this meeting, and which argues well for the future, is that in the ranks of the homœopathic physicians of our State there exists nothing but harmony and a spirit of co-operation and fellowship which is bound to make itself felt throughout the profession at large.

The president-elect is Dr. E. A. Krusen, of Norristown, Pennsylvania, a man whose marked ability and prominence in the homœopathic profession assures a successful administration; and we firmly believe that the fifty-fourth annual session is destined to be even greater than the remarkable conclave just ended. We must not overlook the fact, however, that much depends upon the help of each individual member. Therefore, let us resolve to show our loyalty and devotion to the cause by aiding in any way that we can to make of the next State convention an unparalleled success. Every little boost will help to accomplish this end.

RALPH BERNSTEIN, M.D.

MEMBERSHIP IN THE STATE SOCIETY.

WE all will admit that the principal asset of strength in the organization of our profession is vested in our State Society, and proportionately as our membership increases does our strength grow, with a corresponding ability to advance our cause.

We further believe all will agree that in recent years the laity has been educated to such an extent that the people expect their medical leaders to attend the professional conventions of such organizations in order that they (the people) may derive the benefit accruing therefrom.

Therefore, both from the standpoint of the desire to advance the cause of homœopathy and protect the interests of the laity, our main objective should be to increase the membership of our State Society.

With this thought in mind we advance the argument that eastern cities should be given preference when meeting places for our annual conventions are to be chosen, and we believe the facts will substantiate our position in this respect inasmuch as practically two thirds of the homœopathic physicians practicing in the State of Pennsylvania reside in the eastern section and the records of the sessions of the State Society invariably show larger attendance upon meetings held in the eastern section.

While it may be true that the larger percentage of membership is derived from the east, it must also be conceded that it is

in the east that we must hope to obtain our greatest increase in membership. As the annual meeting is the magnet which must be used to increase the membership it would seem to us logical and wise, therefore, to keep that magnet at the points from which its drawing power will be the greatest.

Application blanks will be found in each number of this Journal.

RALPH BERNSTEIN, M.D.

ANNOUNCEMENT.

President Van Baun and the Executive Committee, in conference with the local committee of Rochester, have determined the date of the Institute, June 17 to 23, 1917, at the Powers Hotel, Rochester, N. Y.

THE USE OF ELECTRIC LIGHT AND HYPOCHLOROUS ACID IN THE TREATMENT OF WOUNDS.—Geo. W. Crile. (*Surg., Gynec. and Obst.*, 1916, xxiii, 486.)—The author states that his attention was called to the use of electric light in treating suppurative wounds by Dr. Dubouchet of the American Ambulance in Paris. He used the lights both singly and in clusters. The treatment was continued both day and night.

Analysis of sunlight and ordinary electric light show that they are practically identical. In the treatment all dressings were removed from the wound, which was left exposed continually. The solution of hypochlorous acid, devised and described by Dakin and Carrel were used.

An adjustable metal hood to cover any part of the body was devised by Miss Fuler and Dr. Bell of the Lakeside Hospital. The amount of light and the proximity to the patient were governed by the comfort of the patient.

Cases of osteomyelitis were lightly packed at the time of operation this was removed in a few hours and all dressings taken off. The light treatment was started and the wound cleansed frequently with Dakin's solution. Open granulating wounds were grafted and left without dressings exposed to the light. Deep drainage cases were more comfortable without dressings and were exposed to intermittent light.

He concludes that from the benefits of dressings must be subtracted the resulting irritation, pain, discomfort, necrosis and discharge. That moist hot packs gives no different heat from that of electric light. That wounds heal best when infection is hindered by the agent least harmful to the tissues and without the irritation of foreign bodies in the form of dressings.

GLEANINGS

FALSE TOXIC SCARLET FEVER. (*Erythema Scarlatinal form.*)—Lasalle reports two cases of false scarlet fever produced in two children by eating grapes taken from vines which had been sprayed with copper sulphate. The deceptive symptoms, chief of which were vomiting, sore throat, headache and a rash covering the entire body, caused an immediate diagnosis of scarlet fever which of course had to be revised as the children were again in normal health after a very short time.

Statistics show a record of copper sulphate poisoning in France between 1825 and 1905 of 183 cases, while there were 738 cases of arsenic poisoning and 347 of phosphorus poisoning.

RALPH BERNSTEIN, M.D.

FREEZING AS AN AID IN RADIUM THERAPY.—In two cases of chancroid, on the nostril in one and at the junction of the nose and lip in the other, Sommer reports that while both cases offered great resistance to radium therapy, that after the firm application of carbon-dioxide snow, which was followed by a strong reaction and not permanent beneficial results, the further application of radium by the same technique resulted in a permanent cure after three weeks of treatment, the cosmetic results being a hardly discernable pinkish scar.

The same procedure in a stubborn case of hyperkeratosis in and around the thumb nail produced the same excellent result.

RALPH BERNSTEIN, M.D.

THE DANGER OF PRESENT DAY SYPHILIS TO THE FAMILY OF TOMORROW.—Blaisdell has made a study of thirty families with the result that he reports having discovered that 59 out of 62 parents were perhaps infected. Twenty-three children of a possible 132 were found to be healthy and most of these were born before their parents' infection. It is estimated that 83 of the remaining 109 are syphilitic resulting in miscarriage and later death or congenital disease. Therefore, it is apparent that syphilis will make its appearance in the homes of the future in proportion to the failure of infected persons to-day to obtain adequate treatment.

RALPH BERNSTEIN, M.D.

ARTIFICIAL ECZEMAS.—Eczema may develop around a wound from a too prolonged or careless use of hydrogen dioxide or iodine according to Sabouraud, who further states that the greater the attempts to heal it, the more obstinate it becomes. If left alone it will heal; but if the condition is sustained by the continued use of artificial measures, a serious infection is likely to be set up.

To keep a wound in a good healthy condition and expedite healing he suggests a mixture of 4 gm. zinc sulphate and 1 gm. copper sulphate in 1 liter of distilled or boiled water.

RALPH BERNSTEIN, M.D.

PELLAGRA IN SOUTH CAROLINA.—Data collected by Muncey is lacking in evidence of direct heredity. However, it is possible there is a hereditary predisposition to the disease in those families in which chronic gastro-intestinal symptoms have existed over a long period, which would seem to be borne out by the fact that in pellagrous families there is a high proportion of gastric and intestinal diseases. Of 105 families observed in which there was but one case of pellagra, only three gave a history of intestinal or dermatological conditions, and but one gave a history of antecedent insanity. Considering this predisposition to the disease, Muncey suggests that the factor necessary for its development is direct contact or life in endemic sections.

RALPH BERNSTEIN, M.D.

TREATMENT OF SCARLET FEVER BY FRESH BLOOD FROM CONVALESCENTS.—This method has been employed by Zingher. The blood obtained from the convalescent may be injected either directly or it may be previously citrated by adding an ounce of blood to 1 c.c. of a 10 per cent. solution of sodium citrate, making the final dilution of the citrate 0.33 per cent.

The sites chosen for the injections are the gluteal regions, the outer regions of the thighs, calves and the triceps muscles, and a syringe of blood is injected into each place. The amount of blood injected varies from 4 ounces in the case of a young child to 8 ounces in the case of older children or adults. The blood is obtained from convalescents of from two to six weeks duration.

Zingher reports having treated 14 cases of toxic scarlet fever in which the prognosis as a rule seemed doubtful and in some of the cases absolutely poor. The injections varied in amount from 75 to 250 c.c., depending to some extent upon the age of the patient. In 7 of the cases the blood was citrated. One-half of the patients were given the blood of one convalescent, the other half from two or more convalescents.

Absorption took place minus any local irritation except in one patient who displayed a swelling in one calf and the opposite gluteal region. However, this was not due to infection and soon disappeared.

Of the fourteen patients treated four died. A decidedly favorable influence was evidenced by the other ten. There was a distinct critical drop in temperature in cases not complicated by a streptococcus exudate or inflamed cervical glands. Improvement in the general condition, however, was seen even in the later septic forms of the disease, although the local phenomena were not influenced perceptibly. It, therefore, seems that these medium quantities of blood lose their specific action in the later septic cases from which the toxic element has disappeared. However, if in these cases larger quantities (8 to 10 ounces) of fresh, normal blood, containing large numbers of natural antibodies, is given a very beneficial effect upon the disease may be exerted. This injection should be repeated, if necessary, in four to five days.

RALPH BERNSTEIN, M.D.

TARDY WASSERMANN REACTION IN THE UNTREATED.—In three cases presenting lesions where there was a suspicion of syphilis and the Wassermann reaction was persistently negative, Gougerot reports that after 100 days, 45 days and 4 months (without treatment), mild secondary lesions

made their appearance and the Wassermann became positive. In one case this was the eighth test. In all three cases mercury or salvarsan promptly controlled the syphilitic manifestations.

These results, according to Gougerot, make it apparent that in suspicious cases they should not be dismissed as some condition other than syphilis when the Wassermann reaction remains persistently negative even far beyond the 30 days from the initial lesion. He recommends that judgment be suspended for at least twelve months, and that even then the test should be repeated the second, third and fourth years, claiming that these are the decisive tests. If clinical examination and the use of the microscope do not decide the diagnosis before this the patient with suspicious syphilitic lesions should be kept under strict surveillance over a long period in order to protect himself and others from the serious harm which negligence may cause.

RALPH BERNSTEIN, M.D.

BONE AFFECTION AND DISPROPORTIONATE LENGTH OF THE LEGS IN CONGENITAL SYPHILIS.—Fournier's statement, quoted by Chable, indicates that in 212 cases of inherited syphilis in children over 2 years of age he discovered some syphilitic bone affection in 38.7 per cent., and that in 46.6 per cent. of the cases the tibia was the bone affected.

The bone curves and apparently grows thicker, and Chable reports two cases in which after puberty the bones grew abnormally long—in one case the tibias being 10 cm. longer than the femurs. This growth began at the age of seventeen. In the other case but one leg grew to an excessive length, there being a difference of 3 cm.

The bones exhibit the typical saber shape and periosteal exostoses. In the older patient, who was 22 years of age, the marrow cavity had been encroached upon by the bone substance and showed signs of eburnification at some places. The other case presented the characteristic softening of the bone. An inflammatory new growth followed the stage of periostitis and hyperostosis which also encroached upon the marrow cavity. The symptoms (pain and functional disturbances) resulting from these changes in the leg bone may readily be misinterpreted, particularly so as they may not develop until early adult life.

Cases presenting an abnormal and disproportionate length of leg below the knee should always suggest the possibility of tardy inherited syphilis.

RALPH BERNSTEIN, M.D.

SYPHILIS AND DIABETES.—According to Warthin and Wilson, quite frequently associated with old latent syphilis is to be found a combined interlobular and interacinar type of pancreatitis with the loss of the Islands of Langerhans. Pancreatitis of a localized and patchy character is the form of the condition found in the majority of the cases, but rarely it is severe and diffuse.

The more marked degrees of syphilitic pancreatitis may have associated diabetes and in their necropsy service all diabetes cases have been so associated; but a number of cases of syphilitic pancreatitis of the same severity have not presented the clinical symptoms of diabetes. Latent

syphilis, therefore, is the very probable chief factor in the form of pancreatitis most frequently associated with diabetes; but it is likewise very probable that diabetes is not always coincident with the severe types of pancreatitis.

RALPH BERNSTEIN, M.D.

ABORTIVE TREATMENT OF SYPHILIS.—In abortive treatment of syphilis, which consists of four injections of salvarsan and twelve injections of mercuric salicylate given weekly, while Oppenheim claims that 80 per cent. can be prevented if treatment is commenced in the early stage of the chancre and the chancre can be excised and only 30 per cent. where the chancre cannot be excised, Joseph J. Bansbach, of St. Louis, Missouri, states that for the past two years he has used with success the following combination to destroy the chancre when it is not possible to excise, and which he believes to be as effective as excision:—calomel, 10 parts; zinc sulphate, 10 parts, and chlorin water, 50 parts. The effect of the application of this combination is a selective action upon the chancre, causing the entire chancre to become necrotic, and without effect upon the healthy tissue. The solution is applied on a pledget of cotton and covered with the prepuce or a piece of oiled silk. It is left in place for 24 hours. In another 24 or 36 hours the chancre can be removed from its bed, and the healthy ulcer which remains heals readily under the action of simple dressings in a very short time.

Bansbach also claims for this combination the power to destroy a chancroid in one application, converting the soft chancre into a simple ulcer, and reducing to a minimum the danger of a bubo. The application causes considerable swelling and smarting of the prepuce, and the patient should be told of this so as to avoid fright and the possible removal of the dressing.

RALPH BERNSTEIN, M.D.

INDICATIONS FOR BLOOD TRANSFUSION.—E. S. Edgerton (*Jour. Kansas Med. Soc.*, Sept., 1916) considers that the majority of anemias offer indications for transfusion, depending upon their nature or severity. Anemia from gastric or duodenal ulcer, if severe with continued active bleeding, demands transfusion both for the hemostatic and for the nutritional value of the new blood. A less certain indication is found in typhoid hemorrhage, but transfusion has certainly given good results in some cases. A ruptured ectopic gestation sac is a certain indication for transfusion before, during, or after operation. The chronic anemias, other than pernicious anemia, require repeated small transfusions, and all forms of hemorrhagic diathesis are suitable fields for its use. Many surgical procedures are aided by transfusion, but shock seems to be helped least of all in this category. Among the essential blood diseases, pernicious anemia is often benefited more by repeated transfusions than by any other measure. Infectious diseases and various poisonings offer a fruitful field for this procedure, but its limited employment has not yet sufficed to determine its value.

FOCAL SEPSIS AS A CAUSE OF CONSTITUTIONAL DISEASE FROM THE VIEWPOINT OF THE INTERNIST.—Dr. Judson Daland. From a study of the subject the following conclusions are drawn:—

1. Chronic focal sepsis is known to be one of the causes of acute and chronic arthritis, peri-arthritis, arthritis deformans, osetitis, endo-, peri- or myocarditis, endarteritis, acute and chronic parenchymatous nephritis, cholecystitis, cholelithiasis, gastric and duodenal ulcer, appendicitis, meningitis, thyroiditis, neuritis, ocular diseases; furunculosis, and is the unknown cause of other diseases.

2. The results of chronic focal sepsis are due to the varying virulence of the microörganism, the duration of the focus, the quantity of microörganisms and toxins entering the circulation and the rapidity of absorption, the integrity of the tissues and the susceptibility or immunity of the patient. The rôle of toxemia is not fully understood.

3. The location of chronic focal sepsis in the order of frequency is the mouth, the tonsils and the sinuses.

4. The diagnosis of chronic septic focus is sometimes easy, but more often difficult. A common error is to recognize only one focus when more than one exists, and this is especially true of the teeth. Loose, dead, capped teeth, and those containing large fillings or connected with bridges or artificial dentures are frequently septic and should be explored. The mouth should be carefully examined for pyorrhea or pyorrheal pockets. The diagnosis of mouth sepsis should be made by a dentist especially trained for this work, and a roentgenogram is always necessary. A tonsil may appear normal and yet contain an abscess or be infective. A partial removal of a tonsil may cause a septic focus by sealing crypts and follicles. The adenoid structure in the supratonsillar fossa may be infective. A sinus may appear normal and a second examination show suppuration. This is especially true of the ethmoid and sphenoid. The virulence of the microörganism, rather than the size of the focus, is important.

5. Success in treatment of constitutional diseases, secondary to focal sepsis depends upon the diagnosis and removal of the focus or foci of infection. Temporary improvement or relapses may be expected when the septic focus is undiscovered or only partly removed.

6. After removal of the focal sepsis recovery may be hastened by general and personal hygiene. It is believed by those having experience that an autogenous vaccine hastens recovery. I have seen a number of patients make satisfactory recoveries without vaccines. The recognition of the principle of secondary systemic infection is one of the most important advances in medicine in recent years.—*Pennsylvania Medical Jour.*

INGUINAL HERNIA.—An analysis of 1,500 cases of the operation for inguinal hernia according to the modern methods, which have greatly extended the field, is given by Lincoln Davis, Boston. His summary and conclusions are given as follows: "In summing up this statistical study of inguinal hernia, I desire to emphasize the following points: The results of operation are on the whole good, better, than might be expected under the conditions. The operation, however, has a definite, though low, mortality rate and should not be undertaken in the old infirm without good reason. Postoperative cough, hematoma and sepsis are important factors in the incidence of recurrence, but the latter complication seems to play a lesser role than is generally assigned to it. A strikingly large

number of patients anatomically cured complain of pain, probably due to nerve-traumatism. General anesthesia is still best in the routine case. Local anesthesia is very satisfactory, and has a wide application in cases in which inhalation anesthesia is contraindicated, but carries a slightly greater risk of sepsis, and hence probably of recurrence, too, although the latter conclusion is not borne out by our figures. Spinal anesthesia, on account of its greater danger and serious sequelae, should have little place in this operation. Careful study of the results in this series of cases reaffirms the importance of the well recognized surgical principles of clean anatomic dissection, conservation of nerve supply, high closure of sac, securely accurate coaptation of tissues without constriction, and complete hemostasis, in the attainment of success in the operation for inguinal hernia."—(J. A. M. A.)

STERILITY IN WOMEN.—So many women, who fain would bear children, are sterile that we welcome the study this subject is being given in this country and abroad. Sterility is the cause of endless mental suffering on the part of the would be mother and often results in marital discord of a serious nature. Many of our female neurasthenics can truthfully ascribe their nervous condition to worry over their inability to assist in the propagation of the race. MacNaughton Jones, sometime president of the British Gynecological Society, has contributed a survey of this subject to the *Practitioner* which is worthy of the careful consideration of the medical profession.

It is obvious that when a practitioner is consulted by a woman for sterility, he has to exercise considerable caution and care in diagnosis, and perhaps in treatment.

When a woman seeks advice on account of sterility, the responsibility of the male for the fault has to be remembered. The statistics published on this point prove that in such a considerable proportion is sterility to be traced to the husband, that inquiry as to his sexual health is imperative. On the wife's side, if it be only an apparent hindrance, through some abnormality of the introitus, shortening of the vaginal canal, abnormality of the porto and os, or any evidence of a chronic inflammatory condition of the vagina or uterus, or premature escape of the seminal flow, the spermatozoa must be examined, and the husband's share in the responsibility fixed. In such inquiry it is necessary that delicacy, tact, and judgment should be exercised, while opportunity is made for questioning or examining the husband without raising the wife's suspicion. We have to ascertain that there is no contributory fault in the act of cohabitation, no congenital or acquired flaw, or malformation of the penis; no consequences of previous gonorrheal inflammation, or, possibly, actual impotence. Without healthy spermatozoa, conception cannot occur, and when there is ground for doubt, the seminal fluid should be examined.

In some instances we arrive immediately at the cause in the female genitalia, by finding that the hymeneal orifice is contracted, and the hymen intact. The employment of an anesthetic is often necessary before we can arrive at a satisfactory conclusion. In inquiring into the woman's history, we ascertain the nature of her employment, and if there has been mental strain previous to marriage. Pressure of hard study among women

who go in for higher education is unfavorable to conception. It is well to recollect that statistics prove that, in the great majority of healthy marriages, conception occurs before the termination of the first sixteen months of married life, or at least before the end of the second year. Further, that up to the end of the fourth year, we cannot fairly assume that there is sufficient ground to regard the case as one of sterility. From this time forward, the proportion of sterile women increases with the years of married life.

In examination of the introitus, we note the position of the vaginal orifice, if projected too far forward from abnormal pelvic obliquity; the position of the clitoris, if out of reach of contact during coitus; if there be any enlargement of Bartholin's or Skene's gland. Extreme sensitiveness or pain on touch is associated with the spasm or vaginismus, a slight fissure at the fourchette, or an ulcer at the margin of the hymen. Passing to the vagina, we may find it short and contracted, a stricture of the canal, the cervix bathed in discharge, or a general inflammatory and granular state of its walls. In all cases the dorsal position and the use of a duckbill or expanding speculum, are necessary.

In examining the uterus, we note a short, conoidal, elongated, or absent cervix; the size of the os, or its partial or complete closure, and the length and patency of the uterine canal. We may find stenosis of the isthmus, and the existence of a myomatous, polypoid, or other tumor. The nature of any uterine discharge is afterwards determined by careful examination in the laboratory. A chronic endometritis is not an unusual cause of sterility. The position of the uterus, and the presence of an acute anterversion with flexion or retroflexion, is ascertained. Enlargement of the ovary from any cause, or its prolapse, a parovarian cyst, and actual dilatation or a swelling of the tube, are easily detected. But, obviously, some tubal anomalies such as elongation, interstitial changes leading to stenosis, torsion causing blockage, and adhesions, are often not possible of detection.

We must regard gonorrhea as one of the principal causes of sterility in both sexes. In the male, there are the secondary consequences, through the involvement of the seminal vesicles, orchitis, prostatitis, epididymitis, both unilateral and bilateral.

In the woman, once the presence of gonococcus is established, the inquiry into the extent of the affection and consequent treatment must be thorough and active. The fatal facility with which the adnexa are invaded, even before the woman is forced to seek advice, is well known. If the vagina and cervix appear to be alone affected, these have to be dealt with at once in one of the several methods adopted for destroying the gonococcus, and restoring the vulva, including Skene's and Bartholin's glands, to a healthy condition. The greatest care has to be taken that neither by the sound nor carrier is the infection conveyed to the fundus. When the cervical canal has been thoroughly disinfected by such means as the application of nitric acid, 5 per cent. solution of nitrate of silver, or the cautery, a probe tightly armed with cotton is carried into the cavity of the fundus, and any discharge collected on it is carefully examined for the gonococcus. A fine suction syringe may be used for the same purpose.

If it be found, then the entire canal must be treated. For the vagina, Jones reports the most satisfactory results with nitrate of silver and colloid silver applications, followed by glycerine and ichthyol tampons; when the fundus is invaded it is well to dilate the uterus moderately before making any application. Nitrate of silver in the first instance, followed by iodine and ichthyol in subsequent dressings, is quite efficient. Should the disease have gone further, and the adnexa be affected, then the case is one for celiotomy and exploration.

When we turn to the sources of sterility in the male, it has primarily to be borne in mind that impotence here is consistent with apparently normal cohabitation. The perfect healthy act, with strong sexual desire, may be present, and yet the woman be sterile, the fault lying in the virility of the spermatozoa, which are incapable of fertilizing. Here the defect is very liable to be attributed to the woman, and this, with the absence of conception, has a deleterious effect on her health and sexual organs, leading possibly to an affection of the latter. A woman who apparently has had normal marital relations with her first husband, and still has never conceived, does often have children by the second.

Having inquired into the state of the husband's health generally, we exclude absolute impotence from want of power, and congenital or acquired abnormality in the penis and testicles; the consequences of syphilis or gonorrhea, or any obstruction, such as tight prepuce, stricture, or prostatic enlargement. If there be no living spermatozoa found in the seminal fluid, it is a case of *azoospermia*; while if but few living elements are present, or none at all are found, it is a case of *oligospermia*. If dead or unhealthy and feeble ones are found, *necrospermia* is the term applied.

With regard to the vitality of the spermatozoa, the living ones have the tail straight, while if it be curled up, they have come out dead.

There may be psychical sources of the sterility, such as nervous apprehension, physical repulsion, and want of affinity on either side. We ascertain if the coitus be normal in regard to erection, sensation, the time it lasts, ejaculation of the semen, or if the act be painful. We seek for atonic causes in masturbation, venereal excess, and the use of drugs, alcoholism, and tobacco. Some of these conditions we find not infrequently in the husband co-existing with the sterility. They are present in such enfeebling diseases as diabetes, phthisis, affections of the spinal cord, all leading to loss of sexual power, and mental depression consequent upon the inability to carry out and complete the act. There is the failure that results from syphilis, in any of its many "reminders," resulting in some serious systematic or local affection; gonorrhea, causing urethral obstruction and difficulty in erection, as well as the diseases of the female genitalia consequent upon infection. Apart from such hindrances, there is the deliberate withdrawal before ejaculation.

We are hurriedly to conclude that, apart from an obvious congenital abnormality, some defect or affection of the genitalia is in itself sufficient to explain the sterility. Impregnation may occur with endometritis, and diseased conditions of the adnexa, as well as with any form of version or flexion, provided there be not such complete closure of the canal as to prevent the possible entrance of the spermatozoa. In any doubtful case, before we decide on operation, we have to examine the seminal fluid. An able paper by Max Huhner in the *Urologic and Cutaneous Review* of

November, 1914, appears on the subject and should be read in its entirety. It deals with the value of the spermatozoa test in definitely fixing the responsibility on the husband or wife. The test involves examination of the cervical mucus for the presence of healthy spermatozoa as soon after coition as possible. If these be found, the author argues that it disposes of most other sources of male sterility, for such spermatozoa, found both in the male and female, negative any assumption that the defects I have enumerated in the husband can be the cause of the sterility; it shows too that the vaginal and cervical secretions play no part in its causation.

Huhner gives explicit instructions for examining for spermatozoa from the fundus. The cervical mucus must first be examined; then there has to be most careful cleansing of the cervical canal. The examination has to be made on the spot. He uses either a wooden applicator or a special syringe for the fundus uteri. If the spermatozoa found in the cervix are dead, then he obtains a *condom* specimen. This decides if they have been alive or were killed in the passage to the uterus. If they be living, healthy spermatozoa, the fault cannot be with the husband. It may then be attributable to some quality of the cervical or vaginal mucus. If before the next coitus a vaginal alkaline douche be used and the spermatozoa are now found alive and healthy, the hyper-acidity of the vaginal secretion is established as being the destructive agent. A pre-coital alkaline douche, Huhner says, will in such a case frequently effect a cure; whereas if it be a failure, then we must adopt other means to secure a healthy vagina, and deal with the endometrium by uterine applications or curettage. Still, if there be premature ejaculations and hypospadias, a bad case of stricture of the urethra, or other physical or nervous condition from which the husband suffers, which interfere with the arrival of healthy spermatozoa in the cervix, even though such be found in the *condom* specimen, the woman remains sterile.

Huhner even goes further, and, when necessary, with a special syringe extracts after coitus some of the mucus from the cavity of the fundus. If there be living spermatozoa found, the cause cannot be due to any flexion or affection of the endometrium, and so we may conclude that either the uterus is unable to support a healthy ovum, or that the fault is higher up in the adnexa. This conclusion is verified by the exclusion of any other uterine condition which would prevent impregnation. It is obvious that any jumping to conclusions from the presence of some abnormality in the female genitalia as the cause of sterility is wrong. Before we subject the woman to any operative interference, the possibility of the husband's share in the trouble must be put beyond question. At the same time when, from the degree of abnormality, there is an obvious reason why the woman does not conceive, whether the husband be at fault or not, it is our duty to rectify this, while at the same time we inquire into the husband's virility.

In regard to the prognosis, the most prudent course to pursue is not to give assurance of a successful issue from the operative or other treatment. There is the class of case in which the symptoms, or some affection present in the genitalia, demand interference, and where, quite independently of the question of conception, operation is imperatively called for. There is the other class, in which the general health of the woman is in

no wise affected, and in which we interfere for the cure of the sterility alone. In neither do we make a definite promise of a successful issue. We explain the probable cause of the sterility, and if it be one calling for operation we can assure the woman that the cure of the disease from which she suffers may be followed by conception, or that remedying the genital abnormality is frequently successful in bringing it about.—*Medical Times*.

HYSTERECTOMY FOR FIBROIDS.—Sir John Bland-Sutton says that as the protein manifestations and combinations of pelvic tumors are oftentimes puzzling, he has framed a few aphorisms which may be useful in practice.

Two things disquieting in diagnosis:

1. To distinguish between solid ovarian tumors and large subserous fibroids.

2. And between tubal swelling and uterine fibroids.

Three foolish things:

3. To give opinions on pelvic swellings without making a vaginal examination.

4. Or on hypogastric swellings without passing a catheter.

5. To remove fibroids without examining the woman's urine for sugar until she is comatose two or three days after the operation.

Four things useful to know:

6. When a barren woman between 35 and 45 has retention of urine, it is almost certain that she has a fibroid in her womb.

7. A fibroid that suddenly becomes painful during pregnancy is probably in a state of red degeneration. The clinical signs simulate tubal pregnancy, axial rotation of an ovarian tumor, and acute infection of the appendix.

8. Errors in the differential diagnosis of fibroids and pregnancy are usually made before the beating of the fetal heart is audible.

9. A cancerous mass in the pelvic colon, in contact with the uterus, imitates the signs of a subserous fibroid.

Four things that are wise:

10. When in doubt whether a big uterus in a young woman contains a child or a fibroid, wait for a month and re-examine the patient.

11. To remember that ovarian tumors give much trouble to pregnant and lying-in women, but fibroids are more deadly, for they are liable to become septic.

12. After the removal of a fibroid in the procreative period of life a woman is more liable to grow more fibroids than to conceive successfully.

13. To remember that uterine bleeding after the menopause, in a barren woman with a fibroid, often signifies the existence of cancer within the uterus.—(*Brit. Med. Jour.*, July 29, 1916.)

THE RELATION OF THE ENDOMETRIUM AND OVARY TO HEMORRHAGE FROM MYOMATOUS UTERI.—Geist. (*New York*) has studied seventy-five myomatous uteri and has described the histological findings both in the uteri and in the ovaries. Several of the theories based upon observations made abroad are reviewed, but the author concludes that in most of the cases of fibroid uteri associated with pathological bleeding there exists a hypertrophied condition of the mucosa irrespective of the phase of the

menstrual cycle. The ovaries in these cases vary from the normal, there being present most often a large corpus luteum, occasionally cystic. These findings seem significant in view of the fact that the ovarian influence is of primal importance in regulating the normal hemorrhage from the uterus, and it seems reasonable to suggest as a possible etiological factor for the atypical hemorrhage associated with fibroids, disturbance in the function of the ovary, perhaps of the corpus luteum.—*Surg. Gyn. and Obs.*, vol. xxiii, p. 68.

ETIOLOGY OF CANCER OF THE OESOPHAGUS AND STOMACH.—Lerche (St. Paul, Minn.) says: Cancer of the oesophagus and stomach is peculiarly prevalent among the inhabitants of the temperate climate zone. The relative frequency with which cicatricial strictures from swallowing corrosive fluids occur in the various parts of the oesophagus increases from above downward; in other words, the widest parts of the oesophagus are the most frequent sites of such strictures—and for physiological reasons. The distribution of cancer in the oesophagus corresponds to that of the cicatricial strictures from swallowing corrosive fluids, and in all probability for the same physiological reasons. Any part of the oesophagus and stomach may be the starting point of cancer with the exception of the pyloric sphincter, which rarely seems to be the primary focus. The organ immediately beyond, namely, the duodenum, is practically immune from cancer. The reason of the two latter phenomena is probably that the ingesta do not reach the pyloric sphincter until they are properly modified. In view of the foregoing conclusions, it seems logical to look to the ingesta of civilized man for the source of chronic irritation, which leads to malignant changes of the oesophagus. The supposition that swallowed fluids after emanating from the cordia are directed along the "gastric gullet" to the prepyloric region, is strongly supported by the fact that the cicatrices from smaller quantities of swallowed corrosive fluids are usually found along this path. Seventy-nine per cent. of cancer of the stomach are also found along this path—the cordia, the "gastric gullet" and the prepyloric region.

As cancer of the stomach follows the "highway of the fluids" it seems logical to assume that ingested fluids in particular may be responsible. Alcohol and other irritating fluids probably play a part, but in the opinion of the writer hot fluids, so universally taken throughout the temperate climate zone, in the form of coffee, tea, soups, etc., and giving rise to chronic irritation, is the main predisposing cause of cancer of the oesophagus and stomach. The disease occurs less often in women than in men, because women drink more slowly and take smaller swallows, which pass quickly through, thus saving the oesophagus, while the less resistant mucosa of the stomach, where the fluids come to a stop, is more equally exposed in both sexes. The fact, therefore, that the ratio of cancer of the oesophagus in men and women is 3.5 to 1, while cancer of the stomach occurs with almost equal frequency in both sexes, points strongly to hot fluids as the important predisposing cause. This is further substantiated by the results of a comparison between the cancer statistics and the habits of the people in the north and south of Europe, by the relative freedom from cancer of the oesophagus and stomach enjoyed by the aborigines of hot climates and the extremely rare occurrence of cancer of the oesophagus in animals.—*Surg. Gyn. and Obs.* vol. xxiii, p. 42.

THEODORE J. GRAMM, M.D.

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CONTRIBUTORS TO VOLUME LI.

Alexander, Dr. George J., Philadelphia, Pa.
Ashcraft, Leon T., Philadelphia, Pa.

Baker, Dr. William F., Philadelphia, Pa.
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THE HAHNEMANNIAN MONTHLY NEWS AND ADVERTISER

A Medical Newspaper

JANUARY, 1916

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Principles and Practice of Obstetrics. By Joseph B. De Lee, A.M., M.D., Professor of Obstetrics at the Northwestern University Medical School. Second edition, thoroughly revised. Large octavo of 1087 pages, with 938 illustrations 175 of them in colors. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$8.00 net; Half Morocco, \$9.50 net.

The publicity attained by the publication of this work two years ago has been so great that a second edition is now called for. The work owes its value, first, to the thoroughness with which the subject is presented, and, second, to the practical and lucid manner in which the author has expressed his views in the text. Diagnosis has been made a special feature and the relations of obstetrical conditions and accidents to general medicine and surgery, have been brought out throughout the entire work. The author has borne in mind the practical needs of the student and of the medical practitioner. The subject matter is divided into four parts: "The Physiology of Pregnancy and the Puerperium"; "The Conduct of Pregnancy, Labor and the Puerperium"; "The Pathology of Pregnancy, Labor and the Puerperium," and "Operative Obstetrics." No review of this work would be complete without a reference to the illustrations of

which there are nine hundred and thirty-eight in all; one hundred and seventy-five of them being in colors. These illustrations have been prepared by experienced artists and are selected with a view of making clear the thoughts conveyed in the texts. Both the author and the publishers are to be complimented upon this valuable addition to medical literature.

International Clinics. A Quarterly Review of Illustrated Clinical Lectures and Especially Prepared Original Articles on Treatment, Medicine, Surgery, etc., etc. By leading members of the Medical Profession throughout the world, edited by Henry W. Cattell, A.M., M.D., Philadelphia, U. S. A., with the collaboration of Chas. H. Mayo, M.D., Rochester, Minn.; Sir Wm. Osler, M.D., Oxford, England; A. McPherson, M.D., Toronto; Frank Billings, M.D., Chicago; John A. Witherspoon, M.D., Nashville; John C. Clark, M.D., Philadelphia, Pa.; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harrold, M.D., London; Richard Kretz, M.D., Vienna, etc., etc. Vol. III. Twenty-fifth series, 1915. J. B. Lippincott, Philadelphia and London.

This volume of *International Clinics* contains a number of practical articles, among which may be mentioned the "Cause and Cure of Chronic Otitis Media," by S. E. Pendexter; "Therapeutic Technique," by William Brady, M. D.; "The Venous Pulse as an Aid in the Diagnosis of Heart Disease," by Thomas E. Satterthwaite, M.D.; "Observation on the Physical Treatment of Diseases of Childhood," by William B. Snow, M.D.; "Hypophysis Disease in Children," by Allen D. Kavanal, M.D. L. Rahm contributes a very interesting article on "War Experiences and Observations in Germany and France."

Manual of Embryology. By A. Melville Paterson, M.D., F.R.C.S., Professor of Anatomy in the University of Liverpool, etc., etc., London: Henry Frowde and Hodder & Stoughton, Oxford University Press, Warwick Square, E. C.; 35 West 32d street, New York. Price, \$2.75.

The importance of a broad basis for future practical work of the medical student is more and more being recognized. It is not surprising then that embryology is given an important place in relation to the problems of human anatomy and physiology. Prof. Patterson has prepared the present work with the full understanding of the need of the medical student and, in addition to considering the subject of general embryology, has taken up a careful consideration of all the various organs and tissues of the body. The work abounds in numerous illustrations and the text is arranged in such a manner as to bring into strong emphasis the important facts. It is a volume which can be highly recommended to teachers and students as both practical and authoritative.

Horlick's "Original" Malted Milk—A Nutritious Food Drink.—The original achievements of a nation, a business concern or an individual, are always interesting from a human interest standpoint, and the history of Horlick's Malted Milk Company from the time this company placed their first food product upon the market, over a third of a century ago to the present time, is particularly interesting.

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New Sanitarium.—Dr. Robert Lippincott Walter announces the severance of his connection with the Walter Sanitarium at Walters Park, Pa. He is now engaged in a like business at Doylestown, Pa., where he has established Linden, a convenient and ideally located institution where physicians can send their patients and be assured of ethical treatment.

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PENNSYLVANIA STATE NOTES.

Ralph Bernstein, M.D., State Society Editor.

The Homœopathic Medical Society of the County of Philadelphia held its regular monthly meeting at Hahnemann College, Thursday evening, Dec. 9, 1915, at 8.30 o'clock. Dr. W. A. Dewey, of the University of Michigan, delivered an exceptionally fine address, the title of which was "Materia Medica." Many interesting topics were discussed at this meeting by a large number of members present.

J. M. Kenworthy, M.D., Secretary.

The Clinico Pathologic Society of Philadelphia held its regular monthly meeting at Hahnemann Medical College, Saturday evening, Nov. 20, 1915, at 8.30 o'clock. The scientific program consisted of the following:

"Keratitis Neuro-paralytica" (Patient), F. O. Nagle, M.D.

"Calcification of the Tube and Ovary" (Specimen), N. S. Betts, M.D.

"Carcinoma of the Tongue, Inferior Maxilla and Sublingual Lymphatics," D. Roman, M.D.

"Gastric Ulcer with Perforation," J. D. Elliott, M.D.

"Aortic Aneurysm" (Patient), C. D. Saul, M.D.

"The India Ink Method of Demonstrating the Spirochete of Syphilis" (Specimen), J. G. Wurtz, M.D.

Applicants for membership should sign the following blank and forward with check for Five Dollars to Dr. W. N. Hammond, 313 Weightman Building, Philadelphia, Pa.

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OF THE STATE OF PENNSYLVANIA

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in the county of _____, State of Pennsylvania, hereby makes application for
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Constitution and By-Laws if elected a member.

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Members.

Vouchers

"Blood Transfusion in Pernicious Anemia," S. W. Sappington, M.D.

"Ectopic Gestation" (Specimen), F. J. Frosch, M.D.

"Auricular Fibrillation" (Patient), W. R. Williams, M.D.

The meeting was an enjoyable one and was well attended.

B. K. Fletcher, M.D., Secretary.

The Philadelphia Society for Clinical Research held its regular monthly meeting at the office of Dr. J. E. James, 118 South 19th street, at 9 P. M. A large number of members were present at this meeting, all of whom had the pleasure of listening to many interesting topics which were discussed.

E. G. Muhley, M.D., Secretary.

The Society of Surgery, Gynecology and Obstetrics held its regular monthly meeting at Hahnemann College, Wednesday evening, Dec. 22, 1915, at 8.30 o'clock. Following is the program which was presented:

"An Unusual Case of Hematuria Complicating Pregnancy"; "The Cystoscopic Detection of Ureteral Calculus", L. T. Ashcraft, M.D.

"A Surgical Paper," H. P. Leopold, M.D.

Several interesting clinical cases were reported, after which a hearty discussion took place.

J. M. Kenworthy, M.D., Secretary

The Women's Homœopathic Medical Club of Philadelphia held its regular monthly meeting at the office of Dr. Mary Branson, 1504 Locust street, on Tuesday evening, Nov. 2, 1915, at 8.30 o'clock. The meeting was an enthusiastic one, the election of officers to serve for the ensuing year took place, after which many interesting papers were read and discussed.

V. Reel, M.D., Secretary.

The Homœopathic Medical Society of Chester, Delaware and Montgomery Counties held their regular monthly meeting at the Hotel Walton, Philadelphia, Pa., on Tuesday, Dec. 14, 1915. Luncheon was served to a large number of members and visiting physicians at 1.3 o'clock. An exceptionally fine paper on "The Value of Materia Medica" was read by Dr. E. M. Howard, of Camden, N. J. Several interesting addresses were made and a number of clinical cases were discussed. The meeting which proved to be a thoroughly enjoyable one was well attended.

Isaac Crowthers, M.D., Secretary.

The Hahnemannian Medical Society of Reading, Pa., held its regular monthly meeting at the Berkshire Hotel, on Nov. 11, 1915. The meeting was preceded by a dinner in honor of Dr. Clarence Bartlett, of Philadelphia, Pa., who was their guest. Following the dinner the business of the Society was disposed with after which the members had the pleasure of listening to the paper presented by Dr. Bartlett, the title of which was "Diabetes." A lengthy discussion followed. The censors reported favorably the name of Dr. Glen Knave.

E. K. Golding, M.D., Secretary.

The Blair County Homœopathic Medical Society held its regular monthly meeting at the Catfish Hotel, Hollidaysburg, Pa., on Thursday, Dec. 9, 1915. The physicians motored to the hotel, where an elaborate banquet was served at 7 P. M. Immediately following the banquet the business session took place, Dr. Palmer, of Hollidaysburg, presiding. Dr. B. F. Books, of Altoona, Pa., read a paper, the article being well received. The election of officers took place at this meeting which resulted in the following: President, Dr. Daniel Bohn, of Altoona, Pa.; vice-president,

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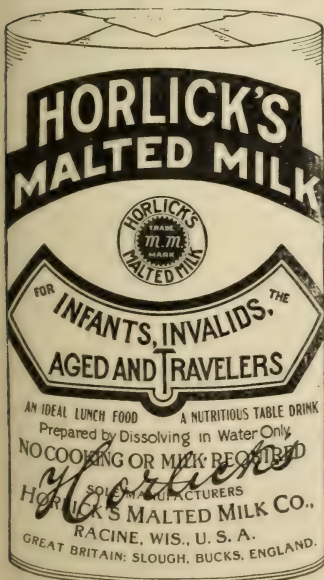
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Dr. W. J. Sharbaugh, Altoona, Pa.; secretary, Dr. J. W. Stitzel, Hollidaysburg, Pa.; treasurer, Dr. D. M. Roudabush, Altoona, Pa.; censors Dr. E. H. Morrow and Dr. A. L. Taylor, Altoona, Pa., and Dr. R. L. Piper, Tyrone, Pa. Before adjournment the physicians discussed plans for the coming year and a committee consisting of Doctors J. W. Stitzel, of Hollidaysburg, Pa.; B. F. Books, and H. B. Replogle was named to outline the work for 1916.

The Homœopathic Medical Society of the Twenty-third Ward of Philadelphia held its regular monthly meeting at the Pen and Pencil Club, 1026 Walnut street, on Wednesday, Dec. 15, 1915, the members being the guests of Dr. Ralph Bernstein. All business matters having been transacted the members listened intently to a lecture on "Diseases of the Skin," with lantern demonstration by Dr. Bernstein. The meeting was well attended and an enjoyable time was had by all present.

J. D. Boileau, M.D., Secretary.

PERSONALS.

Division No. 1, Knights Templar of Pennsylvania held their fifteenth annual field day at Fairmount Park, Philadelphia, Sept. 25, 1915. Corps Hospitaller were as follows: Chief, E. Sir Henry G. Bruner, M.D.; Staff, Sir E. A. Creuger, M.D.; Sir William W. Burns, M.D.; Sir Charles H. Harvey, M.D.; Sir David Henry, M. D.; Sir G. E. Levis, M.D.; Sir G. W. Deitz, M.D.; Sir W. H. Cowgill, M.D.; Sir F. P. Wilcox, M.D.; E. Sir J. C. Egbert, M.D.; Sir F. C. Hammond, M.D.; Sir E. G. Whinna, M.D.; E. Sir P. N. K. Schwenk, M.D.; Sir C. L. Hawkins, M.D.; Sir C. E. Ruffle, M.D.; Sir D. W. Levy, M.D.; E. Sir R. P. Mercer, M D.; E. Sir I. Crowthers, M. D.; E. Sir L. E. Marter, M.D.; Sir H. J. Feit, M.D.; Sir J. H. Closson, M.D.; Sir C. H. McDevitt, M.D.; Sir A. W. Gregg, M.D.; Sir Oscar Dicks, M.D.

Announcement is made of the marriage of Dr. Homer H. Snyder, of Scranton, Pa., and Miss Hannah J. Coate, chief dietician of Hahnemann Hospital, Philadelphia, the ceremony being performed by the Rev. Matthew Hyndmann, pastor of the Olivet Presbyterian church, Twenty-second and Mt. Vernon streets, Philadelphia. Dr. Snyder was an interne at Hahnemann Hospital and it was there that he first met Miss Coate, who is a native of Ludlow Falls, Ohio.

Dr. Albert Rowland Garner announces the opening of an office for the treatment of Mental and Nervous Diseases, at 2010 Chestnut street, Philadelphia. Office Hours: 1 to 2 P. M.

Dr. Edward K. Golding announces the removal of his office from 115 South Sixth street to 211 North Sixth street, Reading, Pa. Practice limited to uro-genital and venereal diseases. Office Hours: 9 A. M. to 1 P. M.; 7 P. M. to 8 P. M.; Sunday by appointment.

Married.—Mrs. Emil Cauffman announces the marriage of her daughter Helene Ormond Butler to Dr. Fred C. Emrey, on Tuesday, the seventh of December, 1915, in the city of Philadelphia.

To Physicians.—A good homœopathic physician can secure the offices of a physician recently deceased, situated in Reading, Pa. This is a rare opportunity. Has been a physician's office and location for more than thirty years, and has always done a good business. The offices can be had including second story front bedroom with use of bath, etc., on very reasonable terms if taken soon. Address, Miss M. C. JENNINGS, 137 South Eighth St., Reading, Pa.

COLLEGE NOTES

Hahnemann Medical College and Hospital of Philadelphia

Edited by C. SEAVER SMITH, '16

Trip Through Hospital.—On Tuesday, Nov. 23d, at one o'clock, the entire Freshman class, thirty-two in all, were ready for a tour of the hospital. Dr. Pearson led half of this brigade of alert young men, each with his hair slicked, a clean shave, and brim full of questions. The honor of leading the other half was conferred upon Dr. Fleming.

No doubt the surgeons, instructors and internes were awaiting the arrival of this illustrious body with fear and trembling lest their cherished institution would be censured by these medical connoisseurs.

The various dispensaries—medical, pediatric, pharmacological, eye, neurological, X-ray and surgical, were all visited in turn. The heads of the various departments were very kind and explained in a few words the advantages, methods of instruction and the practical use of his department.

The following was the usual conversation: Dr. Fleming or Dr. Pearson: "Dr. ———, these are this year's Freshmen. We would like you to tell them something of your department." Dr. ———: "Well, I don't know as there is much to say." This followed by an excellent brief on his department and "all of which you will learn more of in a couple of years. I guess that's about all, doctor." "Thank you, doctor, good-bye." "Good-bye," followed by a few faint echoes of good-bye from the Freshmen nearest the doctor, and the mob shuffles out to appear with wide eyes and gaping mouths at the next medical sanctum.

The clinical amphitheatre and a private operating room were visited before the descent to the first floor. The front offices, waiting room and wards were seen here, and then in the basement the departments of orthopedics, skin diseases, women's diseases, accident ward, and the "Bellevue Stratford" were visited in turn.

The next sojourn, through the Nurses' Home, was brief and incomplete as may be imagined, but comprehensive enough to show how in this building, as well as in the others, everything is of the best and kept in perfect order.

In the Women's Building the eyes of the Freshmen were opened to the wonderful care of even the ward patients and each offspring. The Freshmen donned white gowns in this building, giving some the impression that they were doctors, others masqueraders, and still others that they were attired for the night.

The laundry and boiler house gave the class an idea of the enormity of the buildings of and connected with the hospital.

After the men's dispensary had been visited the class was conducted back to College.

The class wishes to thank Dr. Pearson and Dr. Fleming for their kind guidance, the former especially for negotiating the arrangements.

From the outside the hospital may not look large, portentous or well equipped, but for the initial visitor, as were many of the Freshmen, the inside is a revelation. The size and number, as well as the equipment and maintenance of the buildings found between the College on Broad

and the office of the Hospital on Fifteenth street, makes one proud to feel that he or she is in any way connected with such an illustrious institution.

Here and There about the College.

Professor Herbert L. Northrop, while attending the recent meeting of the American College of Surgeons, held in Boston, reports the following: Dr. Chas. H. Mayo, the noted surgeon (old school) surprised even the homœopathic surgeons present at the congress by praising in no doubtful terms Samuel Hahnemann and the work which he did. Dr. Mayo declared that Hahnemann was at least eighty years ahead of his day in his bacterium and serum thoughts, and prophesies that the most modern methods of treatment are directed in accord with his views. Mayo further stated that the serum treatment of to-day is homœopathic in its application and effect.

Eighteen of the Faculty of the Hahnemann Medical College and Hospital are now members of the American College of Surgeons, which is a mixed college consisting of prominent surgeons of both schools. Sounds well for the surgeons from Old Hahnemann!

Dr. A. L. Smethers, president of the Southern Homœopathic Medical Association, at their recent meeting in Cincinnati, stated that the Southern States could supply good locations for all the graduates from all the homœopathic colleges for the next ten years; therefore, when you graduate, remember that opportunity awaits you in the Southland.

Hahnemann Medical College of the Pacific paid Hahnemann Medical College of Philadelphia a very gracious compliment, by granting Dean Pearson an honorary degree of Doctor of Medicine. Hurrah, for the Dean! More power to him!!

Owing to the generosity of Mr. Walter E. Hering, the donor of the Hering Laboratory of Research, and who believes in college publicity, we are going to have a series of lantern slides, which are being made of our College and Hospital, for the purpose of showing prospective students the advantages of attending the Hahnemann Medical College.

The Southern Homœopathic Association will pay the tuition of some medical student from the South next year, "in some homœopathic college."

Cincinnati and vicinity now have only fifty-three homœopathic physicians, and twice that number are needed. Bear this in mind, Seniors, when you graduate, and there are only three of them who make a specialty of surgery!

Dr. W. E. Riley, of Fulton, Missouri, will visit our college after Christmas, and he wants to persuade a few of our young men to locate in Missouri. Watch out for Dr. Riley; he has to be shown!

Mr. Edmund Allen has given the College \$500, which will partly be used for apparatus for our physical laboratory. Thanks to Mr. Allen.

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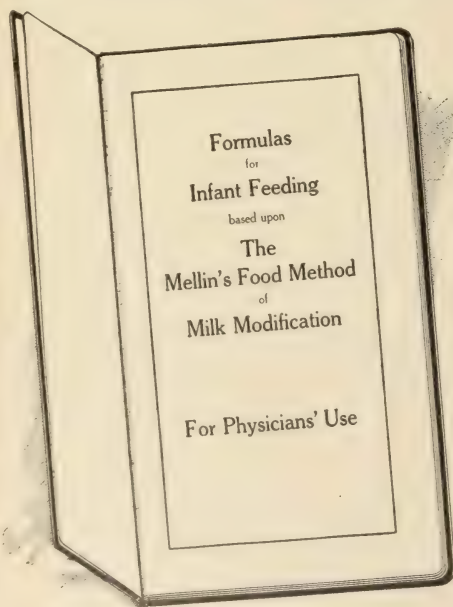
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Dr. Harold P. Peckham, a graduate of last June, was the only man from this College who took the New York State Board examination this year. He was successful, and therefore maintained our average of 100 per cent.

Dr. Daniel P. Maddux, our loyal alumnus, and Chester's noted surgeon, has been reappointed a member of the Pennsylvania Bureau of Medical Education and Licensure. Three cheers for both the Governor and Dr. Maddux!!

Our working Dean is after fifty students for the pre-medical and freshmen classes next year. Every student must help. If you know of anyone at Prep. School who is interested in the study of medicine, hand in his name to Dr. Bernstein, the Dean's assistant, and he will soon be on the job.

Expelled for Fee-Splitting.—The first trial of a member of the Missouri State Medical Association on a charge of fee-splitting and offering to split fees was held recently by one of our component societies. The offender was found guilty by the Board of Censors and expulsion recommended. The report of the Censors was adopted by the society and the sentence carried out. The expelled member was also a Fellow of the American Medical Association, which affiliation he loses.

In attacking some evils the best way to abolish them is to apply the whole force of our strength against them at the outset. This was done in the agitation against fee-splitting; the practice immediately decreased in all parts of the State where it had been prevalent and has disappeared all together in some places where it had threatened to gain a foothold. We need not expect, however, that simple threats to punish offenders or prohibitory resolutions and laws will efface this blot on our escutcheon. We must do more than that—we must drive out of our ranks those who persist in dishonoring their profession and deceiving their patients.

It is now three years since the Association adopted the by-law against fee-splitting and the case mentioned above is the first prosecution for violation of the section. This seeming indifference is due not to the inactivity of the officers of the Association but to the fact that it has been difficult to obtain evidence supported by competent testimony. This evidence must, of course, come from some member who has knowledge of the offense and will produce documentary proofs to substantiate the charge—a step that is offensive and repugnant to the finer feelings of the honest practitioner. Therein lies the grip of the fee-splitter. Having Oslerized his own sense of honor by avarice and the greed for gold he gambles with fate against exposure by men of purer motives and higher ideals. But conditions are rapidly changing. The fee-splitter is finding himself ostracized by the respectable men in the organization and these men are beginning to understand that the only way to purify our ranks is to expose and punish offenders.

The trial and expulsion of the guilty member referred to above is a warning to others that an awakened profession will purge itself of members who defy the traditions and lower the tone of our profession.—Journal of Missouri State Medical Association.

Examination of Candidates for Assistant Surgeon.—United States Public Health Service.—Boards will be convened at the Bureau of Public Health Service, 3 "B" street, S. E., Washington, D. C., and at a number of the Marine Hospitals of the Service, on Monday, January 24, 1916, at 10 o'clock A. M., for the purpose of examining candidates for admission to the grade of Assistant Surgeon in the Public Health Service.

The candidate must be between 23 and 32 years of age, a graduate of a reputable medical college, and must furnish testimonials from two responsible persons as to his professional and moral character, together with a recent photograph of himself. Credit will be given in the examination for service in hospitals for the insane, experience in the detection of mental diseases, and in any other particular line of professional work. Candidates must have had one year's hospital experience or two years' professional work.

Candidates must be not less than 5 feet, 4 inches, nor more than 6 feet, 2 inches, in height, with relatively corresponding weights.

The following is the order of examination: 1, Physical; 2, Oral; 3, Written; 4, Clinical.

Candidates are required to certify that they believe themselves free from any ailment which would disqualify them for service in any climate.

Examinations are chiefly in writing, and begin with a short autobiography of the candidate. The remainder of the written exercise covers the various branches of medicine, surgery, and hygiene.

The oral examination includes subjects of preliminary education, history, literature, and natural sciences.

The clinical examination is conducted at a hospital.

The examination usually covers a period of about ten days.

Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order. They will receive early appointments.

After four years' service, assistant surgeons are entitled to examination for promotion to the grade of passed assistant surgeon. Passed Assistant Surgeons after twelve years' service are entitled to examination for promotion to the grade of Surgeon.

Assistant surgeons receive \$2,000, passed assistant surgeons, \$2,400, surgeons \$3,000, senior surgeons \$3,500, and assistant surgeon-generals \$4,000 a year. When quarters are not provided, commutation at the rate of \$30, \$40, and \$50 a month, according to the grade, is allowed.

All grades receive longevity pay, 10 per cent. in addition to the regular salary for every five years up to 40 per cent. after twenty years' service.

The tenure of office is permanent. Officers traveling under orders are allowed actual expenses.

For invitation to appear before the board of examiners, address, "Surgeon-General, Public Health Service, Washington, D. C."

University of California Creates Chair of Homœopathy.—Dr. Wm. Boericke has been appointed by the Regents of the University of California, Professor of Homœopathic Therapeutics in the Medical Department, the appointment to take effect January 1, 1916. Dr. Boericke is now touring the East, ascertaining the methods used in the homœopathic colleges in instructing in materia medica.

This is the first time in the history of the University that a homœo-

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Last year the Hahnemann Hospital admitted and treated in all its departments over 25,000 patients. This abundance of clinical material is all directly available for teaching purposes, which includes Clinical Lectures, Sectional Clinics, Ward Classes, Individual Ward Work, Dispensary Work and Clinical Laboratory Work in all its branches under direct supervision.

The College also has the advantage of affiliation, for teaching purposes, with The Children's Homoeopathic Hospital, St. Luke's Homoeopathic Hospital, The West Philadelphia General Homoeopathic Hospital, Allentown Hospital for the Insane and Municipal Hospital for Contagious Diseases.

Special attention is directed to the Department of Materia Medica and Therapeutics. The munificent endowment of Mr. Walter E. Hering has established for all time the Constantine Hering Chair of Homoeopathic Materia Medica, Therapeutics and Pharmacology.

Post Graduate instruction is offered the Profession in the laboratories, wards, dispensaries and in the specialties throughout the year. Correspondence is solicited. Hahnemann Medical College and Hospital, 266 North Broad Street, Philadelphia, Pa.

W. A. PEARSON, M. D., Ph. D., Dean.
 SAMUEL W. SAPPINGTON, M. D., Registrar.
 JOHN J. TULLER, M. D., Secretary.

path per se has been appointed to the teaching staff, and to receive a full professorship is an honor of which Dr. Boericke may well feel proud. We may also feel assured that Dr. Boericke will acquit himself in the position with honor to our school. The task is no sinecure, for he will be closely watched by all the old school faculty, but far from deprecating we welcome it, for by conscientious and thorough work we may well hope to interest them in our specialty. The faculty of the medical school is composed of well-trained scientific men, and while some might be prejudiced, the majority are so thoroughly imbued with the spirit of research that a proper presentation of the subject would only invite their further investigation.

Let us not forget Hering and, indeed, the time is ripe for a second Hering, versed in laboratory technique and modern scientific exactness, to give homœopathy that verification by chemical and physical means which will render it acceptable to the modern medical student. With the facilities that are available at the University of California we court investigation, and if out of the West can come the enlightenment of the East, the more glory to our virile state that has the courage to give a place in the sun to all that seek the light of scientific verification.—Pacific Coast Journal of Homœopathy.

Resolutions Passed by The Southern Medical Association, at Dallas, Texas, Nov. 8-11, 1915.—Whereas, The President and the Honorable Secretary of War have announced in the public press that a scheme for the reorganization of the Army will be presented to Congress at its coming session, which will materially increase the military establishment, and

Whereas, We recall the indignant protests and criticisms of the Nation at the failure to provide adequately for the sick and wounded at the beginning of the Civil War and the Spanish-American War, and

Whereas, It is known that this failure was due to the lack of sufficient number of medical officers in the regular army and a means for increasing the medical establishment at the outbreak of war, and

Whereas, In spite of the lessons of the Spanish-American War, which were fresh in mind in the reorganization of the Army in 1901, the Medical Department was not properly increased and no provision was made for its expansion in time of emergency, and

Whereas, To correct the defects in the 1901 legislation, subsequent legislation was necessary in which the medical profession of the United States was called on to assist; therefore, be it

Resolved by the Southern Medical Association, in session at Dallas, Texas, that the Secretary of War be petitioned to make adequate provision in the reorganization of the Army about to be presented to Congress for a sufficient number of medical officers for the regular establishment, which provision should aggregate a proportion of medical officers of, at least, seventy-five hundredths of one per cent. of the enlisted strength of the Army, or such number as the Surgeon-General of the Army may deem necessary, and be it further

Resolved, That the Secretary be petitioned to make provision in this reorganization for the expansion of the Medical Department at the beginning of war, by calling into service in the Medical Reserve Corps physicians from civil life who have been instructed in their special duties as medical officers in our summer camps, and otherwise as the War Department may see fit.

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A Medical Newspaper

FEBRUARY, 1916

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PENNSYLVANIA STATE NOTES.

The Homœopathic Medical Society of the County of Philadelphia held its regular monthly meeting at Hahnemann College, Thursday evening, January 13, 1916, at 8.30 o'clock. The scientific program consisted of the following:

"Pyorrhea Alveolaris: Its Recognition, Treatment and Relation to General Health" M. T. Barrett, D.D.S.

This subject was illustrated with lantern slides, showing the ameba of pyorrhea and its effects upon the gums and teeth.

"The Ear and Sinus Complications of Mouth Infections" was a subject which brought forth hearty discussion.

The Society has planned some very interesting meetings for the winter months and a series of practical demonstrations of modern diagnostic measures has been arranged.

J. M. Kenworthy, M.D., Secretary.

The Managers of the Hahnemann Hospital held a reception in honor of the medical students in the College Building, Broad street above Race, on Friday, December 10, 1915, at 8 o'clock, at which time a large number of physicians and those interested in the students and the college attended and the affair proved to be a most enjoyable one and those of the committee who so ably assisted in making it so were as follows: Mrs. Thomas Carmichael, Mrs. D. Bushrod James, Mrs. Harry Weaver, Mrs.

Clarence Bartlett, Mrs. Joseph M. Steele, Miss Isabel W. Semple, Mrs. Dillwyn Wistar, and Mrs. Howard C. Potts, Chairman.

The Germantown Homœopathic Medical Society of Philadelphia held its regular monthly meeting at the Majestic Hotel, Broad and Girard avenue, on Monday evening, January 17, 1916, at 9 o'clock. This meeting was devoted to the election of officers and to the interest of Hahnemann Medical College. The Dean, Dr. Wm. A. Pearson, gave an exhibition of the new Hering slides, showing the College at work and which proved to be a pleasing feature of the occasion. The guests of honor were as follows: President of the College, Mr. Charles D. Barney; Trustees: Mr. John Gribbell, Mr. Walter E. Hering, Mr. Charles P. Perkins, Mr. George W. Elkins, Hon. Ernest L. Tustin, Mr. Charles S. Hebard and Mr. Joseph McCullough; Dr. Harrison W. Howell, Wilmington, Del., president of the Alumni Association, and Dr. Wm. A. Pearson, Dean of Hahnemann. The College Orchestra and Glee Club were present and contributed some very pleasing selections. Supper was served at eleven o'clock to which all did justice.

Charles B. Hollis, M.D., Secretary.

The Society of Surgery, Gynecology and Obstetrics held its regular monthly meeting at Hahnemann College, on Wednesday, January 26, 1916, at 8.30 P. M. Dr. Wm. H. Bishop, of New York, and Professor of Surgery at the New York Homœopathic College, in his well known manner ably presented a well prepared paper on "Surgery," after which several interesting clinical cases were reported. The meeting was a thoroughly enjoyable one and was well attended.

J. M. Kenworthy, M.D., Secretary.

The Philadelphia Society for Clinical Research held its regular monthly meeting on Wednesday evening, December 22, 1915, at 9 o'clock, at the Hotel Colonnade. A fine Christmas entertainment had been provided for the members and friends of the Society, after which supper was served at 10 P. M. The meeting was well attended and a most enjoyable time was had by all present.

E. G. Muhley, M.D., Secretary.

The Clinico-Pathologic Society of Philadelphia held its regular monthly meeting at Hahnemann College, Saturday evening, December 18, 1915, at 8.30 o'clock. The scientific program consisted of the following:

1. Choked Disk Due to Brain Tumor (patient)F. O. Nagle, M.D.
2. Atypic Spinal Lesions (patient)J. L. Metzger, M.D.
3. Cretinism (patient)B. K. Fletcher, M.D.
4. The Value of the Two-step Operation in Prostatocystitis (patient)
W. C. Hunsicker, M.D.
5. Sub-Acute Arthritis and AdhesionsW. M. Sylvis, M.D.
6. Pharyngeal Features of Acute Leukemia (specimen)

F. W. Smith, M.D.

7. Fibroma of the Small Intestine with Intususception. J. E. James, M.D.
8. The Mechanism of Pronated and Flattened Feet. (Illustrated with
Lantern Slides)D. J. Morton, M.D.

All members were present and thoroughly enjoyed the program, which was so ably presented.

B. K. Fletcher, M.D., Secretary.

The Oxford Medical Club of Philadelphia held its regular monthly meeting at the Union League, on January 7, 1916. Dr. E. M. Gramm

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read a paper the title of which was "Carcinoma of the Skin." Dr. Charles M. Brooks was honor guest of the Society. The election of officers to serve for the ensuing year took place, which resulted in the following: President, R. W. Larer, M.D.; vice-president, J. A. Harrison, M.D.; secretary, E. M. Gramm, M.D. There was a full attendance of members, and the meeting was an enjoyable one.

E. M. Gramm, M.D., Secretary.

The Women's Homœopathic Medical Club of Philadelphia held its regular monthly meeting at the office of Dr. Mary Branson, 1504 Locust street, on Tuesday, January 4, 1916, at 8.30 P. M. "Alcohol and Tobacco" was heartily and ably discussed by a large number of members present.

V. Reel, M.D., Secretary.

The West Philadelphia Clinical Society held its regular monthly meeting at the West Philadelphia Homœopathic Hospital, on Wednesday evening, January 5, 1916, at 9 o'clock. An interesting scientific program was presented which was as follows:

"Interstitial Keratitis" Wm. H. Hillegas, M.D.
 "General Serositis" H. M. Gay, M.D.
 "Tubercular Cervical Adenitis" Geo. Stubbs, M.D.

These papers brought forth a hearty discussion, after which Dr. C. H. Seybert read "A Resume of Infant Feeding," the discussion of which was opened by Dr. C. S. Raue. Keen interest was shown at this meeting by a large number of members present.

Harry D. Evans, M.D., Secretary.

The Germantown Homœopathic Medical Society of Philadelphia held its regular monthly meeting at the Hotel Majestic, on Monday evening, December 20, 1915, at 9 o'clock. The position of X-Ray in General Medical Diagnosis, with special reference to diseases of the heart, lungs and stomach was heartily discussed by the following: Drs. W. R. Williams, G. Harlan Wells, G. H. Bickley, H. M. Eberhard, Thomas Bradley, J. W. Frank, W. C. Barker and S. W. Sappington. The discussion was brought to a close by Drs. W. R. Williams and Clarence Bartlett. The meeting was in every way an enjoyable one and a large number of members were in attendance.

C. B. Hollis, M.D., Secretary.

Personal—Dr. and Mrs. Richard Franklin Hill announce the birth of Richard Franklin Hill, Jr., on January 11, 1916.

Obituary.—Dr. Charles M. Thomas, former Dean of Hahnemann Medical College, died early Friday morning, January 15, 1916, at his country home near West Chester, Pa., after a lingering illness of two years. He was sixty-seven years old. Until his retirement from active practice, three years ago, his office was at 1823 Chestnut street, Philadelphia.

Dr. Thomas was widely known and enjoyed one of the largest practices in the city, and was considered an authority on surgery and ophthalmology, having at one time held those chairs at Hahemann College. He was a member of the American Institute of Homeopathy and the State and County Homœopathic Societies.

He is survived by a widow, three sons and three daughters. Dr. Thomas was born in Watertown, N. Y., May 3, 1849. He was educated at the Central High School and the Hahnemann Medical College of Phil-

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of the year _____, and practicing medicine at _____,
in the county of _____, State of Pennsylvania, hereby makes application for
membership in the Homoeopathic Medical Society of the State of Pennsylvania, and agrees to abide by its
Constitution and By-Laws if elected a member.

, M. D.

_____, M. D.

_____, M. D.

Members.

Vouchers

adelphia. Later he studied surgery in Europe. He became Dean of the College in 1903 and held that chair until 1906. During his later years he devoted his attention exclusively to diseases of the eye and ear. The sons who survive him are Russell E. Thomas, of California, and Earl and Frank who live at the Thomas home. The daughters are Mrs. T. H. Coates, Mrs. R. Brognard Okie and Mrs. Howard Okie. Mrs. Thomas was Miss Marion Turnbull, daughter of the late Dr. Lawrence Turnbull, of Philadelphia.

COLLEGE NOTES

Hahnemann Medical College and Hospital of Philadelphia

Edited by C. SEAVER SMITH, '16

Institute Meeting.

The Institute was honored at its last meeting by having as one of its guests Dr. Maddux, of the Bureau of Medical Education and Licensure of the State of Pennsylvania, a graduate of homeopathy when the old college was located on Filbert street. Dr. Maddux stated that he was always glad to get back to his Alma Mater, and that he could not help remarking how much better the student of to-day is trained than formerly.

A few trite remarks were then made as to the State Board examinations, and an explanation of the status of the undergraduate assisting a physician or taking charge of his practice during his absence. With regard to the latter, the Board obtained an opinion on the subject from the Attorney General, to the effect that according to the Act governing such matters none except licensed graduates could act in this capacity, with exemption only to those under the service of the United States Army or Navy, and those serving in hospitals.

As to examinations, Dr. Maddux made it clear that those given by the Board were not written out as mere memory tests, but that the one idea was to find out how the applicant would use the tools with which he had become acquainted when out as a practicing physician. Then he gave two practical hints as to the examinations themselves. Every year there are those whose grade is imperilled by carelessness; for instance, if the question be about setting a broken bone, it would even be detrimental to try to pad the answer with a whole discourse on the subject of surgical cleanliness. Next he emphasized the importance that lies in analyzing every question before it is answered. Should the question say "Describe," or "Narrate," or "Enumerate," do what it says, and only what it says. Don't voluntarily sling a whole lot of extra ink, but first make a hard and fast analysis of the question, then answer it, and stop there.

Dr. Dewey, Professor of Therapeutics at Ann Arbor, was scheduled as the principal speaker of the evening, but owing to the death of his mother it was impossible for him to be with us.

But it takes more than unforeseen circumstances to dampen the ardor of men like President Ferguson and Dr. Bernstein, when those men make up their minds that this is to be the biggest year the Institute has ever known at Hahnemann. And by keeping the wires hot, and persisting after being turned down time and again, at the last moment they were successful in securing the good services of Dr. Walter S. Cornell, widely known

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as a sociologist, and Chief Medical Inspector in the Public Schools of Philadelphia. Dr. Cornell and Dr. Bernstein were classmates at Northeast High School, and each seems to reflect the hustling ability of the other. A detailed report of Dr. Cornell's address is printed in the current issue of the Hahnemannian Monthly.

The Institute Orchestra, composed of Wittman, leader, first violin; first violin, A. Seraphim and Hutchinson; second violin, Paxson and Ross; 'cello, DeCampos; piano, Stubbs; first cornet, Junkermann; second cornet, Scruggs, played selections from Princess Suzanne and Princess Pat.

The Glee Club, composed of Taggart, leader, and Condon, Doyle, Hawn, Jack, Lane, Line, Reading, Seraphim, Stevenson brothers, Stubbs, Tongue, Walker, Walther and Webb, added a great deal of pleasure to the meeting by singing "I'd Like to Go Down South Once Mo'," and for encore "The Jolly Blacksmith's Lay."

Walker, accompanied by Taggart, sang "Gypsy Trail" and "Mother Machree."

A note was read from Mr. Griffith, complimenting the boys on their organization and extending to them the Season's Greetings.

Rev. McCartney.

Just a few days before parting for the Christmas holidays, the students met in a body at noon in the Assembly Room. Dean Pearson introduced Reverend McCartney, of the Arch Street Presbyterian church. He spoke very fittingly of the Christmas season as a time of giving, and of self-forgetfulness. He said that he saw light even in the sorrow and misery of the world-wide war, for the men gave their lives willingly for their country, quoting: "Greater love hath no man than this, that a man lay down his life for his friends." The medical student enters a calling where he has an opportunity to give the greatest of self and make it the noblest profession, for there is no nobler object than a manly, conscientious, unprejudiced, resourceful, self-forgetful, self-giving, sympathetic, helpful, Christian physician. The doctor is called to warfare in cap and gown rather than khaki and gun, to a warfare with ignorance, disease and pestilence. He has an example in the Great Physician, "Who came to minister, not to be ministered unto."

Reception by Board of Lady Managers.

On the evening of December 10th, the Board of Lady Managers of the Hospital gave an entertainment and reception to the students of the college. The Assembly Hall was attractively decorated with the college flags and bunches of huge chrysanthemums. The silver cups, evidences of former athletic victories, were on exhibition. The College Orchestra played "Sweet Adair," followed by two selections from the Glee Club, "I Want to Go Down South Once Mo'," and "Winter." Dr. Pearson then gave a few words of welcome, introducing the entertainer of the evening, Mr. DeMar, cartoonist for the Philadelphia Record. Among the many pictures he drew, the following brought forth much laughter and applause: Little Willie changed the drawing of his pet pig to that of a delicate rose on account of teacher, who was swooping down upon him. The artist then changed a perfectly good-looking steamship into a popular "schooner." By reversing a picture of the Kaiser (which would probably in Germany get the cartoonist a jail sentence) he had the likeness of King

George of England. With a few well-applied lines he changed the signature of Fairbanks to the elephant of his chosen party. He then made the Democratic mascot out of his own signature. Father Penn was then shown, wreathed in smiles, on his way to the ball park last fall, to see his proteges win the Championship. By turning the picture about, we saw him on his return with Gloom for his middle name.

Dr. Pearson introduced Mrs. Stewart, who favored us with three vocal solos, "The Hindu," "Will o' the Wisp," and "The Nightingale." She was accompanied by her daughter.

Mr. Barney, president of the Board of Trustees, was unable to be present on account of invitations to three dinners. Reverend Floyd W. Tomkins was called upon. He complimented the Lady Managers upon their work; continuing with a long line of funny stories, he ended, as is his usual custom, with a delightful short talk.

"The Hills of Donegal" and "Young Tom o' Devon" were acceptably rendered by Dr. Killian, accompanied by Stubbs at the piano.

A flash-light picture of the gathering was taken by our student photographer, Purcell. The Hahnemann song was sung and all then adjourned to an adjoining room, where the hostesses had prepared a delicious buffet supper. Sociability and good-fellowship reigned supreme until a late hour.

Among those present were: Mrs. Stewart, Mrs. Stubbs, Mrs. Pfeil, Mrs. Goldsmith, Miss Stewart, Mrs. Condon, Mrs. Reading, Mrs. Smith, Mr. and Mrs. Potts, Dr. and Mrs. Bartlett, Rev. Floyd W. Tomkins, Dr. and Mrs. H. Leopold, Dr. and Mrs. H. S. Weaver, Dr. and Mrs. Killian, Dr. and Mrs. Paxson, and Dr. Randall.

Dr. Hinsdale.

On December 4th, Dr. A. E. Hinsdale, Dean of the Homœopathic Medical School in the University of Ohio, at Columbus, favored us with a visit. He spent some time looking over the Hospital and College. At noon he spoke to the student body. In referring to Hahnemann, he paid him a high tribute and said that 98 per cent. of his writings and beliefs were true to-day. He gave his hearers a still greater faith in homœopathy when he said that their practice would not be a series of trials ad infinitum, but that they could confidently assure their patients of the result. The patient of to-day demands refinement in medicine as in other lines, and in consequence will not stand for so-called "horse-medicine." The homœopathic physician has a feeling of confidence in his armamentarium, that when he is called in consultation, he has something better than the other fellow. In fact this has been so well demonstrated that there are twenty backsliders in the other school to one in ours, whether they admit it or not. He stated that the dominance in surgery was at an end, and the "pill-peddler" was coming into his own once more. He then gave a little advice to the young doctor, namely to subscribe to at least one medical journal, and to join the local Homœopathic Association. He then complimented the students on belonging to such an old and honorable institution which sets a standard to which the school in Columbus strives to attain. There they have already broken ground for a new State Hospital where the medical students will be trained. Their system of instruction will include four years of study; two years in common with the students of the old school, and two years devoted to homœopathy.

Senior Class.

The Senior Class spent a most enjoyable as well as profitable evening at Dr. Clarence Bartlett's home, No. 1435 Spruce street, December 1st. Two very pleasing and interesting papers had been prepared by Messrs. Fulmer and Phillips. Their subjects were: "A Practical and Radical Prophylactic Measure against Syphilis," and "Preventive Medicine," respectively, and as may be supposed, their reading was followed by quite a lengthy discussion. At these informal meetings discussion is open and free to all after the reading of the paper, and arguments are entered into with the greatest interest by everyone.

Later on the evening was turned into a social one, and we all had a royally good time indulging in Dr. Bartlett's "Smokes," and having Caruso, Melba and an inexhaustible supply of selections on the Victrola.

Heard in Medical Clinic: Chief Complaint—Pneumonia; Diagnosis—Fracture of Fibula.

Dr. James, to Senior reading patient's history: "What is the diagnosis, Doctor?" Brilliant Senior: "Salpingo-oophorectomy." Dr. James, with a tolerant smile: "Not yet."

The Senior who reports his 'Fraternity Banquet at Institute meeting must be either absent-minded or tongue-tied.

Due to the large foreign clientele of our dispensary and their consequent lack of knowledge of our language, there are many peculiar incidents.

Professor of Dermatology, to patient: "Hold down your head!" Patient feels compelled to hold his head down with his hand.

Student in Skin Dispensary, pointing to prescription slip: "Rub this on every night for 'five minutes by the clock' and come back in a week." Two days later the patient returns with the prescription slip very much soiled and worn, "No more, too much sick. Please, Mr. Doctor, give Joe more yellow paper."

Some patients take things so literally that when told to take medicine in water, they sit in the bath-tub while taking it.

The President of the Senior Class wishes to call the attention of the student body to the fact that when they take an examination that it is very essential that they use the following formula when signing their names to papers: "I hereby declare that I neither gave nor rendered assistance in this examination." Failure to comply with this requirement will be looked upon as a violation of the honor system, and an instructor or professor is justified in refusing to accept such examination paper if he so desires.

Juniors.

In a recent lecture on the virtues of the homœopathic principles and practice, Dr. Baker propounded the following forceful and characteristic statement, which we think is worthy of repetition: "Any man that goes out of Hahnemann College and sneers at the law for which his Alma Mater stands, ought to be homœopathically castrated so that he cannot propagate his sect."

MEANS

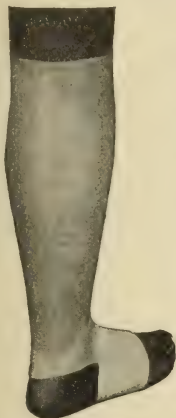
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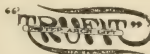
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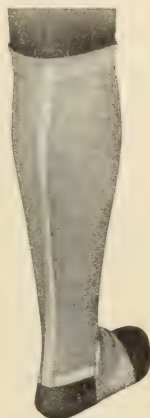
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To those who delight in solving riddles, the following words found in the Junior Materia Medica examination papers may be of interest: "Eruptions of gas," "Eccitement," "Mellancholy," "Dyarrea."

Dr. Van Tine: "In what cases of whooping cough would you use lachesis?"

A Junior: "In a case greater on the left side with darting eyes."

Dr. Williams, to the patient: "Are both legs swollen?"

Patient: "Yes, Doctor; but I only have one."

Dr. Wells: What is a peptic ulcer?"

A Junior: "It is a circumcised loss of mucus membranes."

Sophomores.

The Sophomore Class has a member who has a strong feeling of sympathy for frogs. This has been shown a number of times when Mandrachia was heard to make the remark of "Poor Froggy!"

The following conversation was heard in the Hall, Purcell to Tuthill: "What is argyra? (Chronic silver poisoning)." Tuthill: "Why that is only another name for the convolutions of the brain."

The Sophomores have completed their work in dissection and are greatly indebted to Dr. Weaver for giving us a most excellent course in that department.

Freshmen.

"Happy New Year!" With this greeting the fellows returned after the Christmas holidays, determined to work harder on this last lap of the season's race.

Back to work! Resolutions were made (to be kept or broken, as the case might be) and now let us make another one. Let us all get together and boost the Hahnemannian. Fellows have not contributed, and the Assistant Editors are responsible for the news in their respective classes. Now, "Come, all ye sons of Hahnemann," and contribute to our paper.

Of course the writer could express his thoughts in very flowery language, but men can be hired for \$1.50 a day to shovel that.

Fellows, come out to the Institute and support it for all you are worth.

Now, men, do your duty! As has been said before, "Keep Hahnemann on the Map." Enough said. Let's get together!

Dr. Northrop gave us a temperance lecture one day while Dr. Fleming was absent. Why it was that the lecture was repeated for the benefit of Dr. Fleming on his return can only be guessed.

Pre-Medicals.

Each member of the Pre-Medical Class received a very nice Christmas letter from their worthy Dean, Dr. Pearson. The letter was more than simply "Greetings of the Season." It complimented the individual's noble ambition to become a physician, and all in all it was as warm and rare as a day in June, notwithstanding the fact that the letter was dated in December.

This little act of the Dean's was greatly appreciated by all, and certainly shows the interest which men at the head of Good Old Hahnemann take in the boys.

Therefore, be it resolved, that:

We, of the Pre-Medical Class are going to root and pull hard for Hahnemann College, and recommend it to prospective medical students wherever and whenever we can, because we can see that here is where they do things, and where things are done for you.

Won't you, you who are out and making good, send some other good fellow along to join the Mighty Throng?

Many of the Pre-Meds came to Hahnemann with a feeling of uncertainty, due to the many knocks and discouraging things told them, by supporters of the old school. They feel differently now, and bid fair to become strong defenders of homœopathy. This is not due to any knowledge of medicine quickly obtained, but to the hustling, bustling atmosphere of the college, the inspiring faculty, and the grand lot of upper classmen, who would never work so hard for any cause, but a great one. The Pre-Meds observing all this had to get right into the swim. And so we are here, thirty-seven strong, to sing our little song.

Faculty.

Dr. Wm. W. Van Baun was the special guest and speaker of the evening at the Fifteenth Annual Banquet of the Homœopathic Medical and Surgical Club of Baltimore, Maryland, held at the Emerson Hotel, December 9th.

Dr. W. A. Pearson, our Dean, gave a talk before the students of the Northeast High School in Philadelphia on the 7th. Later in the day he went to Harrisburg, where he addressed our Alumni. The following day he was in Carlisle, and spoke to the student body of Dickinson College.

Dr. Ralph Bernstein, the Dean's assistant, delivered a public lecture on "The Care and Hygiene of the Skin," at the Nichols Public School, on Thursday evening, January 13th, under the auspices of the Bureau of Public Education and the Home and School League.

Alumni Notes.

'66 and '81.—Dr. J. G. Streets, of Bridgeton, N. J., who was staying a few days in Philadelphia, visited the college the early part of the month and attended several lectures. Dr. Streets graduated from the College when it was located on Filbert street, and has now been in active practice for fifty years. He reports that influenza is running riot in Bridgeton as in other sections of the country. Dr. Streets' brother, Dr. David R. Street, was graduated from Hahnemann in 1881, after having received the degree of M.D. at the University of Pennsylvania.

'86.—Dr. Horace B. Ware, of Scranton, Pa., made a rush trip to Philadelphia just after the holidays in search of an interne for the Hahnemann Hospital of Scranton. He reports that a great service is obtained there, and an opportunity for a busy year. The Executive Committee of the Hospital reports that it has fulfilled all the requirements of the State of Pennsylvania in regard to hospital service, and in addition offers a salary of \$300.

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The College also has the advantage of affiliation, for teaching purposes, with The Children's Homoeopathic Hospital, St. Luke's Homoeopathic Hospital, The West Philadelphia General Homoeopathic Hospital, Allentown Hospital for the Insane and Municipal Hospital for Contagious Diseases.

Special attention is directed to the Department of Materia Medica and Therapeutics. The munificent endowment of Mr. Walter E. Hering has established for all time the Constantine Hering Chair of Homoeopathic Materia Medica, Therapeutics and Pharmacology.

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W. A. PEARSON, M. D., Ph. D., Dean.
SAMUEL W. SAPPINGTON, M. D., Registrar.
JOHN J. TULLER, M. D., Secretary.

'90.—Eugene D. Heimbach, son of Dr. A. E. Heimbach, Class of '90, from Renovo, Pa., visited the College the latter part of November with a friend, Philip Teah. Both of the young gentlemen are looking forward to studying medicine at the Alma Mater of Dr. Heimbach.

'93.—Dr. J. L. Ireland, of Erie, Pa., former classmate of Dr. Widman, was a visitor at the College during the month.

'98.—Dr. W. N. Rogers, of Hamilton, Ohio, preceptor for Pater, '17, spent a few hours looking over the College just after vacation.

'04.—Dr. Geo. A. Merkel, a prominent physician of Minersville, Pa., visited the College on November 5th.

'12.—Dr. W. L. Werner, of Lititz, Pa., passed away January 6, 1916. He was a victim of pneumonia, a result of the all-pervading epidemic of grippe.

'13.—Mr. and Mrs. J. Charles Engler announce the marriage of their daughter, Minnie Agnes, to Dr. Charles Benj. Reitz, on Saturday, the first of January, Easton, Pa. Dr. Reitz is pathologist at the Allentown Homœopathic Hospital for the Insane, Allentown, Pa. He visited the College with his bride soon after their wedding, making an inspection of the buildings.

Visitors.

Dr. E. St. John Ward, Professor of Surgery in the American University in Syria, was a visitor at the College recently. He is successor to Dr. Post, who was a pioneer in that section, going out many years ago to found the American University under the auspices of the American Board of Presbyterian Missions. Dr. Post was a very good friend of Dr. Wm. B. Van Lennep's and of his father's, at whose home he often visited in the Far East.

Dr. Gustavus A. Ahnfelt, a graduate of Chicago Hahnemann, and a physician at the Walters Park Sanitarium at Walters Park, Pa., has been spending some time in the hospital and college in order to prepare himself for the State Board examinations.

Among the visitors to the College during November were Drs. J. W. Allen and C. C. Wolcott, of Garfield, Kansas.

Here and There About College.

Owing to an error in the last College Notes, the names of Drs. Mercer, Roman and Betts were omitted from the list of Faculty members who recently obtained at Boston their degree of Fellow of the American College of Surgeons.

This year, instead of the professional photographer, one of our own students, Purcell, of the Sophomore Class, took the annual picture of the student body, assembled on the college steps.

The Fellow that doesn't succeed has too much wish-bone and not enough back-bone.

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THE HAHNEMANNIAN MONTHLY NEWS AND ADVERTISER

A Medical Newspaper

MARCH, 1916

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Bandaging. By A. D. Whiting, M.D., Instructor in Surgery at the University of Pennsylvania. 12mo of 151 pages, with 117 original illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$1.25, net.

This volume is a repetition of the author's instructions in bandaging at the University of Pennsylvania. It is intended for beginners and an attempt has been made to follow the course of each bandage in detail so that the student when studying turns in the absence of the teacher may not make false ones which must be corrected later. The book is amply illustrated and can be highly recommended to students and nurses who desire to study the art of bandaging.

Post-Mortem Examinations. By William S. Wadsworth, M.D., Coroner's Physician of Philadelphia. Octavo volume of 598 pages with 304 orig-

inal illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$6.00 net; half-morocco, \$7.50 net.

The profession is fortunate in the fact that a man with such a widespread and varied experience in post-mortem examinations as Dr. Wadsworth has consented to give to the profession the advantage of his work along this line. Only those who have frankly faced difficulties presented by the actual problem of making and interpreting post mortem findings realize the skill necessary to give a satisfying and practical opinion. The haphazard judgment of the novice in this art is, in the majority of cases of but little help and contributes but little to the progress of pathological and clinical knowledge. Dr. Wadsworth has taken up the subject in great detail, beginning with the changes that take place in the dead body. Description of the instruments used; the methods of opening and dissecting various organs and tissues of the body and then a thorough discussion of special lesions and of medical-legal post-mortem examinations. The book is by far the most practical and authoritative one dealing with this important subject in American medical literature.

The Practitioner's Visiting List for 1916. Four styles: weekly, monthly, perpetual, sixty-patient. Pocket size; substantially bound in leather with flap, pocket, etc.; \$1.25 net. Lea & Febiger, Publishers, Philadelphia and New York.

The Practitioner's Visiting List embodies the results of long and studious effort devoted to its development and perfection, and is the final result of over thirty years' experience in meeting and anticipating the needs of the practising physician. It is a practical convenience which once possessed, becomes indispensable to the busy practitioner.

It affords a simple and complete system for keeping the records of daily practice. In addition to the ruled pages for daily calls and their notes, general memoranda, addresses, cash account, etc., it contains specially arranged spaces for data desired for permanent record such as births, deaths, etc. The value of such records is best appreciated by the physician who has been suddenly confronted by the necessity of producing such data after the lapse of years and in the absence of an orderly system for its preservation.

It is issued in four styles to meet the requirements of every practitioner: "Weekly," dated for 30 patients; "Monthly," undated for 120 patients per month; "Perpetual," undated, for 30 patients weekly per year, and "60 Patients," undated, for 60 patients weekly per year.

The text portion of The Practitioner's Visiting List for 1916 contains, among other valuable information, a scheme of dentition; tables of weights and measures and comparative scales; instructions for examining the urine; diagnostic table of eruptive fevers; incompatibles, poisons and antidotes; directions for effecting artificial respiration; extensive table of doses; an alphabetical table of diseases and their remedies, and directions for ligation of arteries. The record portion contains ruled blanks of various kinds, adapted for noting all details of practice and professional business.

Printed on fine, tough paper suitable for either pen or pencil, and bound with the utmost strength in handsome grained leather, The Practitioner's Visiting list is sold at the lowest price compatible with perfection in every detail.

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Oxford War-Time Primers. Oxford University Press, 35 West 32d Street, New York, and Hodder & Stoughton, Warwick Lane, London, E. C.

The Oxford University Press has recently published a number of small volumes dealing with matters of special interest to surgeons and nurses engaged in surgical work. All of these works are written by men who have had practical experience and constitute the most up-to-date and practical information available on military medicine and surgery. The carrying out of operations on the X-ray table as illustrated upon, is a process which affords great promise for the future.

The following books are included in the list: "The Stretcher Bearer," by George M. Dupoy; "Injuries of the Eyes, Nose, Throat and Ears," by Major A. M. Ramsay, R.A.M.C.; Major J. D. Grant, R.A.M.C.; Capt. H. Lawson Whale, R.A.M.C.; "Surgery of the Head," by Major L. Bathe Rawling, R.A.M.C.; "Gunshot Injuries of Bones," by Capt. E. W. Hey Groves, R.A.M.C.; "Wounds of the Thorax in War," by J. Keogh Murphy; "Medical Hints," by Col. J. Edward Squire, R.A.M.C.; "Abdominal Injuries," Prof. Rutherford Morrison and Lieut. Col. W. G. Richardson, R.A.M.C.; "Wounds in War; Their Treatment and Results," by Lieut. Col. Darcy, R. A. M. C.; "Nerve Injuries and Shock," by Capt. Wilfred Harris, R.A.M.C.; "Injuries to Joints," by Major Robert Jones, R. A. M. C.

A Manual of Hygiene and Sanitation. By Seneca Egbert, M.D., Professor of Hygiene and Dean of the Medico-Chirurgical College, Philadelphia. New (6th) edition, thoroughly revised. 12mo, 525 pages, with 141 figures and 5 plates. Cloth, \$2.25 net. Lea & Febiger, Philadelphia and New York, 1916.

The frequency with which successive editions of Professor Egbert's book are exhausted and new ones demanded places its value and standing beyond question. The author has responded to this renewed opportunity by effecting such changes as were needed to represent the latest developments in a very active subject. Mankind is awakening to the unapproached importance of anything affecting the public health, and it is now expected that every physician shall know and apply the principles of preventive as well as curative medicine. An authoritative work covering the essentials of this great subject clearly and briefly therefore interests medical students and practitioners as well as specialists in hygiene and sanitation.

A Treatise on the Principles and Practice of Medicine. By Arthur R. Edwards, M.D., Professor of the Principles and Practice of Medicine and Clinical Medicine and Dean of the Northwestern University Medical School, Chicago. New (third) edition, thoroughly revised. Octavo, 1022 pages, with 80 engravings and 23 full-page plates in colors and monochrome. Cloth, \$6.00 net. Lea & Febiger, Philadelphia and New York, 1916.

The merit of Professor Edwards's work has won the practical recognition of a demand for a third edition. It is the product of an experienced physician, a notable teacher, and an unsparing worker. No less efficient combination in the person of one man could adequately exhibit present-day medicine in a single volume of convenient size. This he has done, and in excellent perspective, making a well-proportioned book, properly directed, as he says in the preface; that is, with everything necessary, and

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in the county of _____, State of Pennsylvania, hereby makes application for membership in the Homœopathic Medical Society of the State of Pennsylvania, and agrees to abide by its Constitution and By-Laws if elected a member.

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everything leading up to the final object of medicine, namely, treatment. Thorough systematization is employed for brevity and ease of consultation, and for the even more important advantage thereby secured that facts arranged in their natural order lead into each other and impress the underlying reasons on the reader's mind. Critical study of his own work, and careful consideration of the reviews, have led the author to adhere to the plan and features that have proved so popular, but he has spared no labor in improving it to the utmost. The work has been practically rewritten to secure increased clearness and conciseness. All the real advances throughout this immense domain have been incorporated. Particular attention has been given to therapeutic details in accordance with the recent awakening of the profession to the importance of logical treatment. Numerous new preparations and modified dosages, particularly for children, are explicitly specified. In a word, all classes of readers, students and practitioners alike, will find this very broad and skilful work admirably suited to their requirements.

Obstetrics. A Practical Text Book for Students and Practitioners. By Edwin Bradford Cragin, A.B., A.M., (Hon.) M.D., F.R.C.S.; Professor of Obstetrics and Gynecology, College of Physicians and Surgeons, Columbia University, New York; Attending Obstetrician and Gynecologist to the Sloane Hospital for Women; Consulting Obstetrician to the City Maternity Hospital. Assisted by George H. Ryder, A.B., M.D., Instructor in Gynecology, College of Physicians and Surgeons, Columbia University, New York; Assistant Attending Obstetrician, Sloane Hospital for Women; Associate Surgeon, Woman's Hospital, New York. Octavo, 858 pages, with 499 engravings and 13 plates. Cloth, \$6.00 net.

The author's eminence as a specialist in the fields of Obstetrics and Gynecology, his remarkable success as a practitioner and an instructor, and his exceptional advantages and experience as Attending Obstetrician and Gynecologist to the Sloane Hospital for Women, combine to make the appearance of this new work an event of great interest and importance to the medical world.

During a protracted service as medical head of the Sloane Hospital for Women, where over 1,800 deliveries annually occur, the author has enjoyed exceptional opportunities for observation and experience in obstetrics; and for several years he has felt a growing sense of the duty of placing before the profession and students of medicine the methods of this institution and the results obtained. The present text-book of Obstetrics has seemed to him the most rational and perhaps the most useful way in which to meet this obligation. The work, in the methods advocated, is based upon the statistical results of the Sloane Hospital and upon the experience gained by the author in the hospital and in private practice. Another object of the work has been to present American statistics in obstetrics which, it is believed, represent the most extensive and careful records available in this country.

The fact that many text-books now before the profession, although very valuable for reference, are too large for the undergraduate student, has been appreciated by the author, and he has covered the subject concisely, eliminating all unnecessary discussion.

Professor Cragin has written a book which will be found not wanting in any essential feature either as a student's text-book or a practitioner's reference work.

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An Introduction to Bacteriology for Nurses. By Harry W. Carey, A.B., M.D., Former Assistant Bacteriologist, Bender Hygienic Laboratory, Albany, N. Y. Philadelphia, F. A. Davis, Publishers; English Depot, Stanley Phillips, London. Price, \$1.00.

Many of the duties of the nurse require a knowledge of the principles of bacteriology in order to be performed intelligently. The volume before us is designed to meet this need and gives the nurse such information concerning the history of bacteria, methods of disinfection, manner of spread of bacteria and the technique of collecting material for bacteriological examination.

It is a very practical little work for nurses and others desiring information along this line.

The Careful Consideration and Patronage of subscribers to *The Hahnemannian Monthly* is earnestly requested as to those who carry copy with us. Extreme care is taken by the management in the solicitation of only ethical products and trustworthy and commendable advertisers—and from the variety carried, such selections as are necessary to fulfill all your requirements, can confidently be made, and thus your patronage will lead to the mutual satisfaction and success of all concerned.

Probably the most successful propagandistic book of recent years is "The Elements of Homœopathic Theory, Practice, Materia Medica, Dosage and Pharmacy," published by Boericke & Tafel. It was written for physicians of other schools of medicine, and about 5,000 copies have been sold, largely through advertisements in old school journals, and it is still selling. There is no better book for inquiring physicians and students, the fact of which assertion seems to be proved by the large sales. The price of the book (223 pages) is \$1.00.

Dr. M. W. VanDenburg's book, just published, "Therapeutics of the Respiratory System," is most timely in view of the epidemic of influenza that has spread over the United States this year, though, indeed, it is a book for all time, covering as it does the respiratory system, covering it completely. It is easy to see that the work will become the textbook of homœopathy in this branch of therapeutics. The physician who can quickly cure a cold, or "the grippe," is the man the public will look to. "Colds," "coughs," etc., form a large part of the ills of the transient patient and this book puts the whole of the ten volumes of the "Guiding System" at one's command, arranged in a clear and orderly manner. (Boericke & Tafel, publishers. \$5.00.)

Auto-Toxic Ills and the Liver.—Auto-intoxication is so frequently due—directly or indirectly—to hepatic torpor, that stimulation of the liver becomes, perforce, the first and most important detail of its treatment. The almost specific action of chionia in increasing hepatic activity without producing catharsis gives it, therefore, a highly important place in the successful management of auto-toxic conditions. The results that follow its use are especially satisfactory in that they are accomplished through physiologic or natural channels. One to two teaspoonfuls in water, three times a day will rapidly restore biliary activity and thus remove the train of auto-toxic symptoms commonly described as biliousness.

The Tuberculous Invalid.—The pricking of the Friedmann bubble but served to still further confirm and accentuate the vital importance of the well defined methods of treatment for tuberculosis, that have given such encouraging results, i. e., fresh air, sunshine, rest, nutritive reinforcement and judicious medication. A proper combination of these four remedial factors is practically certain to place the incipient tuberculous invalid upon the road to recovery, if the patient is intelligently handled and the treatment persisted in. While it is, of course, acknowledged that the first three non-medicinal agents referred to constitute the vital elements of the upbuilding regime, considerable aid is afforded by judicious medication. Hematinic reinforcement should certainly not be neglected, in view of the secondary anemia which is almost always apparent. Among the agents which have produced the best results in the revitalization of the blood, Pepto-Mangan (Gude) is the most generally eligible and acceptable. As it is thoroughly palatable, neutral in reaction, free from irritant properties and devoid of constipating effect, the digestion of the patient is not disturbed, while the appetite and general vital tone improve more rapidly and satisfactorily than when hygienic and nutritive measures are depended upon exclusively.

PENNSYLVANIA STATE NOTES

Edited by Ralph Bernstein, M.D.

Hahnemann Medical College, Philadelphia, Pa.—The curriculum at Hahnemann insures unexcelled instruction, and its modern hospital gives all students an abundance of clinical material. The Junior and Senior students of Hahnemann come in close personal contact with the patients and the Hering Research Laboratory and the Hering Clinical Laboratory provide splendid facilities for studying Homœopathic Materia Medica and Clinical Diagnosis.

The Hahnemannian Monthly is publishing notes of the college in each issue and you can learn a great deal of the college activities by consulting this magazine.

Hahnemann Medical College will hold its Commencement Exercises on June 1st. The Class of 1888 is planning a reunion, and it is hoped that other classes will do the same. Why not write to several of your classmates and plan to meet on June 1st?

The American Institute of Homœopathy will hold their meetings in Baltimore this year and even our Alumni who live a great distance should plan to visit the college on their way to the meetings of the American Institute of Homœopathy.

W. A. Pearson, Dean.

The Homœopathic Medical Society of the County of Philadelphia held its regular monthly meeting at Hahnemann College, Thursday evening, February 17, 1916, at 8.30 o'clock. The scientific program was as follows:

"The Clinical Importance of the Examination of the Stools in Infancy"

C. S. Raue, M.D.

"The Recognition of Intestinal Parasites" S. W. Sappington, M.D.

The meeting was quite an interesting one and was well attended.

J. M. Kenworthy, M.D., Secretary.

The Allegheny County Homœopathic Medical Society held its regular meeting February 16, 1916. The program for the evening included a paper by Dr. N. P. Knappenberger, entitled "Obstruction of the Bowels," and a very interesting talk by Attorney John Frazier, on the "Workmen's Compensation Act."

Charles A. Ley, Secretary.

The Society of Surgery, Gynecology and Obstetrics held its regular monthly meeting at Hahnemann College, Wednesday evening, February 23, 1916, at 8.30 o'clock. Following is the scientific program:

"Cæsarean Section" Theo. J. Gramm, M.D.
 "Some Phases of Abdominal Diagnosis" J. D. Elliott, M.D.

Several interesting clinical cases were reported. Many topics were discussed at this meeting by a large number present.

J. M. Kenworthy, M.D., Secretary.

The Homœopathic Medical Society of the Twenty-third Ward of Philadelphia held its regular monthly meeting at the office of Dr. Wm. Erwin, 4844 Cedar avenue, on Wednesday, January 19, 1916. Many matters of importance were discussed at this meeting and an enjoyable time was had by all present.

J. D. Boileau, M.D., Secretary.

The Oxford Medical Club of Philadelphia, Pa., held its regular monthly meeting at the Columbia Club, on February 4, 1916. An interesting feature of the meeting was a demonstration of the physical characteristics of radium, showing the various preparations for external and internal use, given by Mr. Otto Buseck. All members of the Club were present and the meeting was an interesting one.

E. M. Gramm, M.D., Secretary.

Changes in the Staff of the Children's Homœopathic Hospital.
 At the annual meeting of the Board of Directors of The Children's Homœopathic Hospital of Philadelphia, Franklin and Thompson streets, held on January 10th, the following changes were made in the Hospital Staff:

Dr. Augustus Korndoerfer, Sr., was elected medical and surgical director, as well as acting superintendent at a salary of \$2,000 per annum.

Dr. J. J. Tuller was elected visiting physician on the medical staff, the department of neurology having been dissolved.

Dr. C. S. Raue was changed from medical and surgical director and visiting physician to consulting physician.

Dr. Wm. Steele failed in re-election as visiting physician and to the Executive Committee.

Dr. B. K. Fletcher failed in re-election as visiting physician.

Dr. W. L. Hicks loses unofficial position as assistant in the department of neurology, the same having been dissolved.

Dr. B. B. Fenimore failed in re-election as assistant in the department of dermatology.

The Women's Homœopathic Medical Association of Pittsburgh, Pa., held its regular monthly meeting at the office of Dr. Anna Varner, Wilkensburg, Pa., on Thursday, February 3, 1916, at 8 P. M. "Clinical Study of Adenoids and Tonsils" was the subject for discussion, which was entered into by a large number of members present.

Anna Johnston, M.D., Secretary.

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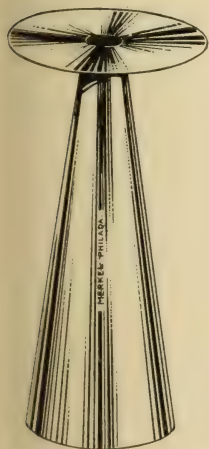
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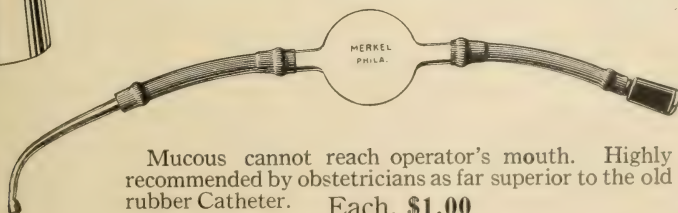
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Personals.—On Thursday evening, February 10, 1916, a testimonial dinner was given at the Adelphia Hotel, in honor of the fiftieth birthday of Dr. Herbert L. Northrop, professor of anatomy, at Hahnemann College. It was plainly seen how highly esteemed Doctor Northrop is among the profession at large by the large attendance at this dinner, about one hundred and fifty being present. Dr. Wm. B. Van Lennep filled the chair of toastmaster with much grace and dignity. The toasts which were given brought forth much merriment and were full of wit and humor. Those who responded to toasts were: Dr. O. S. Haines, Philadelphia, Pa.; Dr. Frederic Howell, of Reading, Pa., and Dr. Wm. M. Speakman, of Philadelphia, Pa. Many noted homœopaths throughout the State were present and the dinner was one of the most enjoyable ever given.

A dance, the proceeds of which will go to help make the nose and throat dispensary of the Hahnemann Hospital the best in the country, was given at the Rittenhouse Hotel on Wednesday evening, January 26, 1916, under the auspices of a committee of ladies who have become interested in the plans of the staff of the dispensary. Not only is it planned to make the dispensary the best, but also to double its present capacity. Nearly four hundred persons attended the dance. The committee in charge included Mrs. Walter C. Hancock, Mrs. W. Lyttle White, Mrs. Harry P. Anderson, Miss Virginia Thomas, Mrs. Norman Cantrell, Mrs. Ernest L. Tustin, Mrs. Horace G. Davis, Mrs. Joseph F. McCulloch, Mrs. J. DeWitt Erwin, Mrs. Richard V. Mattison, Mrs. Wm. Hess and Mrs. Herbert L. Johnston.

Dr. Deacon Steinmetz announces the removal of his office to 1425 Spruce Street, Philadelphia. General surgery exclusively. Hours, 11 to 1. Telephone, Spruce 1397.

Dr. Fred. C. Peters announces the opening of offices at 1825 Chestnut street, Philadelphia, Pa. Eye exclusively. Office hours, 10 A. M. to 1 P. M.

Dr. George J. Alexander announces the opening of his new office, Room 801, eighth floor, Professional Building, 1831 Chestnut street, Philadelphia. Hours, 9 A. M. to 1 P. M., and by appointment.

COLLEGE NOTES

Hahnemann Medical College and Hospital of Philadelphia

Edited by C. SEAVER SMITH, '16

Seniors.—Our semi-monthly medical conference was held as usual at the home of Dr. Clarence Bartlett, our clinical instructor and Professor of Medicine. Armstrong presented a very interesting paper on "The Tuberculin Treatment of Tuberculosis."

Following the reading of this article there was an extensive discussion on this subject and other matters closely allied to it. As is customary at these meetings, a pleasant social hour was spent listening to the favorite selections on the Victrola.

Dr. Van Lennep departed from the usual custom of the clinic shortly after the eventful concert of our combined Glee Club and Orchestra. He complimented the boys very highly on their success, and further stated that he had wished for these very organizations in the college for many years, saying that from no other source was there so much refinement attained as from good music.

Senior, seeing leader of Orchestra playing his violin and at the same time smoking a cigar: "I wonder how the harmony would be if the cornetist tried that?"

Heard in Medical Clinic: Dr. B., reading Senior's history of patient: "Chief complaint, pneumonia." Later: "Diagnosis, fracture of fibula."

Senior, very much overcome by his ability to raise a moustache, to Professor of Dermatology: "I would prescribe nux moustachia for that patient." Rather difficult if patient happened to be a woman, don't you think?

We understand from odors dominant frequently in the college that a certain Sophomore is using Glover's Mange Cure (this is not an advertisement). "Baldy," of the Seniors, might follow suit for his hirsute.

In Surgical Clinic: Senior, reading history of supposed patient, well disguised on operating table: "Patient is a woman, 32 years old, housewife by occupation ——" Surgeon: "From my point of view this patient is a male."

Professor, lecturing on the theory of immunizing human beings against fatigue by injection of serum from a rabbit that has been tired out, notices student sleeping in seat: "Of course, we might try this on R-b-r-s to see if it really works."

Juniors.—Reflecting upon the events that have crowded upon the Junior Class since its return to duty after a strenuous holiday season, we find very little that would be of interest to our many friends. We have been so absorbed in the undeniably pleasant task of passing off the myriads of examinations that beset us, that we have had little time to manufacture much original wit and humor. Our curriculum is more varied than a vaudeville program, and we find ourselves doing such things as mis-diagnosing fractures in surgical dispensary, compounding nostrums in the pharmacy, discussing politics in orthopedics, doing the two-glass urine test in G. U., operating with care and precision on the cadaver, and so on ad infinitum.

However, we are by no means greasy grinds, for with pardonable pride we can claim a lion's share of the glory of the successful initial concert of our combined Glee Club and Orchestra. Out of twenty-three men comprising the Glee Club, ten men were from our class, while four of the mainstays of our Orchestra belong to this illustrious Junior Class. We were also proud of the hit made by our jovial classmate Walther in his catchy solos.

Leaving this boastful vein, we wish to bring the name of our friend, Dr. Wm. M. Baker, into these columns. He has asked for volunteers to help in the examination of the employes in the various manufacturing plants of the city. It is an attempt to add scientific data to our materia

medica by the thorough examination, physically and symptomatically, of the various laborers exposed to the action of different chemicals used in the various manufacturing processes. Quite a number of our boys have volunteered, and will no doubt get to work in the near future.

Echoes from Dr. Roedman's "One ringed circus":

Student to Patient: "Disrobe."

Condon proceeds to examine the patient and finds condition negative.

Condon: "What did you come here for?"

Patient: "Doctor, I done gone hab a boil on de back ob my neck."

Discovered in the same department, a new local anaesthetic for circumcision: Six drams alcohol. Needless to say, it worked so well that the fellow never came back to have the job finished.

Dr. Baker: "What is the best kind of soap for bathing?"

Voice from Rear: "Ivory, because it floats."

Sophomores.—Dr. Northrop, while lecturing to the Sophomore Class on the convolutions of the brain, explained how they resembled coils of the intestines, and clinched the statement by relating an instance of a child, who, upon seeing the brain exposed, cried out: "O look, papa! This man has guts in his head!"

The Sophomore Class presented Dr. Weaver with a beautiful fountain pen, in honor of his birthday, January 10, 1916. On it was engraved the following: "R. B. W., January 10, 1916. Class of 1918."

Freshmen.—Dr. Pearson has at last succeeded in securing a professor of chemistry for the Pre-Meds. He is Dr. Wilbur Horn, of the West Philadelphia High School for Boys. He is a mighty fine man, indeed, as the West Philly fellows know. Now, Dr. Pearson has more time to devote to the Freshman Class.

The mid-years are past and we are finished the course in Histology. We are the first class over which Dr. Steinhilber has had full charge. He made us work—writing like mad at times for an hour to an hour and a half straight. He certainly can lecture! But after all is said and done, Dr. Steinhilber treated us pretty "white" and we all have a corner in our hearts for him. Good luck to you and your department, Doctor!

We have started our anatomy laboratory work. The first day we were in there, Dr. Weaver talked to us for two hours, telling us about some of his experiences. He frequently went on to a "side-track," as he said. Throughout his talk we were very, very interested. No wonder everyone loves our "little friend."

Institute.—On January 19th the Hahnemann Institute held its monthly meeting. After the roll call, to which a majority of the members responded, the Orchestra played "Araby." The Banquet Committee reported the time and place of the annual banquet of the Institute, which announcement appears below. The Glee Club then sang "Honey Town," and were called back for an encore "Old Man Noah," which made a great hit.

Committees then were appointed by President Ferguson. The Orchestra played "Sweet Adair" so stirringly that the whole of the student body

was forced to sing it with a great deal of spirit. Walker led the singing.

The speaker of the evening, Dr. H. L. Northrop, was introduced by President Ferguson with a very high tribute and expression of respect as a teacher, admiration as a surgeon, and love as a man. After a few bright, snappy stories, not forgetting the "Ford" variety, told in his inimitable manner, Dr. Northrop launched out on his talk, during which the whole audience was kept in deepest interest. The subject was "The Seven Wonders of the Human Body," thoughts which probably have never before been collected under one heading. They included anatomical references, excerpts from the classics and quotations from the Bible; including alike poetry and prose, wit and sadness, levity and severity.

Here and There about College.—'14. H. L. Schaffer, of Mt. Oliver, Pa., was a visitor at the college just after the holidays.

'17. Mr. and Mrs. Jerome L. Shepard announce the marriage of their daughter Adaline Arita to Mr. Edgar Burnett Junkermann, on Tuesday, December 28, 1915, Columbus, Ohio.

'12. Dr. Thomas P. Edmundson, 3509 Fifth avenue, Pittsburgh, Pa., has been spending a few days at the college and will visit New York City and Boston before he returns to his home town.

Establishment of a Department of Hygiene, Sanitation and Epidemiology.—The H. K. Mulford Company announces the establishment of a department of Sanitation and Epidemiology, under the executive management of Thomas W. Jackson, M.D., expert in preventive medicine, sanitation and the study and control of epidemic diseases.

The department does not propose to enter into competition with the constituted public health authorities, Local, State or Federal, but to aid and assist these authorities in every possible way. The work is essentially one of service and education, and will be developed along these lines. The resources and equipment of the Mulford Laboratories, Chemical and Bacteriological, will be utilized, thus placing at the disposal of the new department the entire laboratory facilities and expert services of the H. K. Mulford Company.

Have you seen the Borden's Condensed Milk Company's 52-page book, "Baby's Welfare"? It is a handsomely bound and illustrated book, containing many excellent and helpful points for the mother or expectant mother. You can get copies of this to give to your patients, free of charge from the Borden Company, New York City. Little attentions like this will draw your patients closer to you and insure to you their life-long loyalty and patronage.

"In Particular Cases."—Therapeutic efficiency in the use of the bromides is often as dependent on the avoidance of untoward effects as on the attainment of maximum physiologic activity. For this reason Peacock's Bromides offer the most satisfactory bromide therapy, for not only does this happy combination of carefully selected bromide salts insure all the benefits of the most active bromide preparation, but it does so with the great advantage that gastric disturbance and all tendencies to bromism are reduced to a minimum. This is why in "particular cases" so many physicians are in the habit of insisting on the use of Peacock's Bromides.

An Easily Digested Cod Liver Oil Product.—The therapeutic value of a cod liver oil preparation depends upon the ease with which it is digested and assimilated. If it distresses the stomach and is not assimilated, its value as a therapeutic agent is nil. Thus the need of choosing a cod liver oil product that is well received by the stomach and is quickly assimilated. In *Cord. Ext. Ol. Morrhuæ Comp. (Hagee)* these several requirements are met. In this cordial the essential principles of the plain oil are preserved unchanged, its disagreeable feature (the grease) being eliminated. *Cord. Ext. Ol. Morrhuæ Comp. (Hagee)* possesses every therapeutic virtue of the crude oil with the added advantage of palatability.

Physician's Offices and Home for Sale.—The home of the late Dr. Jesse W. Thatcher, at the southwest corner of 35th and Hamilton streets, West Philadelphia, is to be placed on the market for sale. Dr. Thatcher occupied the property for over 30 years. Here he built up a large and lucrative practice, and from here he carried on his strenuous and valiant fight for the principles of homœopathy. The house is a three-story brick structure standing alone on a lot 50x100; including the offices and two bathrooms there are 18 rooms in the house. A garage was recently built on the rear lot. Dr. Thatcher enjoyed, practically, a monopoly of homœopathic treatment in this large residential section, and his death leaves a want not yet filled. The sale of the property is in the hands of Jacob A. Fritz, No. 1106 Land Title Building.

An Important Silver Germicide.—There are numerous silver salts on the market. One of the most efficacious of these is believed to be the protéid-silver compound manufactured by Parke, Davis & Co. under the name of Silvol. This product occurs in scale form, has a dark, lustrous appearance, and contains about 20 per cent. of metallic silver. Silvol is slightly hygroscopic, consequently is readily soluble in water. Aqueous solutions of any strength desired may be prepared from Silvol—solutions having this important advantage: they are not precipitated by proteids or alkalies or any of the reagents that commonly affect other silver compounds in solution. Moreover, Silvol solutions do not coagulate albumin or precipitate the chloride when applied to living tissue.

The use of Silvol is indicated in inflammatory affections of mucous membranes generally. It may be used locally in solutions as strong as 40 per cent. without producing pain or irritation. In acute gonorrhea, as an abortive measure, a 20-per cent. solution may be injected every three hours, while in the routine treatment the injection of a 5-per cent. solution three times a day is recommended.

Silvol penetrates tissue and destroys pathogenic bacteria. It is non-toxic. The product is available in two forms: powder (ounce bottles) and capsules (6-grain), bottles of 50. The contents of two capsules make one fourth ounce of a 10-per cent. solution. For application to regions where the use of an aqueous antiseptic solution is impracticable, Silvol Ointment (5 per cent.) has been devised. This ointment is marketed in collapsible tubes (two sizes) with elongated nozzle.

Hospital Physician Wanted.—There is an opening for a young physician at the Fergus Falls State Hospital, Fergus Falls, Minn. Unmarried man from twenty-five to thirty-five years preferred. Applications to be made to G. O. Welch, Fergus Falls State Hospital, Fergus Falls, Minn.

THE HAHNEMANNIAN MONTHLY NEWS AND ADVERTISER

A Medical Newspaper

APRIL, 1916

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Autoplastic Bone Surgery. By Charles Davison, M.D., Professor of Surgery and Clinical Surgery, University of Illinois, College of Medicine; Fellow of the American College of Surgeons; Surgeon to Cook County and University Hospital, Chicago, and Franklin D. Smith, M.D., Clinical Pathologist to University Hospital, Chicago. Octavo, 369 pages, with 174 illustrations. Cloth, \$3.50, net.

The authors have succeeded in presenting, in clear and concise form, a vast array of facts and theories covering this important subject. This work brings to the reader not only the proved results of the authors' own practice and experimentation, but it also includes a painstaking resume of the literature which has appeared during the last few years.

Wherever the literature is at variance with their experimental and clinical deductions, the authors have presented the literature as it exists in addition to their own findings, thereby permitting the reader to draw his own unbiased conclusions. The authors' own opinions are based upon histopathological study and analysis of tissues removed from experimental animals at varying periods of time after an operation had been performed.

This experimentation includes not only problems with the regeneration of osseous tissue, but problems in technic, mechanics and minor problems in this difficult field of surgical science.

Perhaps the most important section of the work is that which treats of the repair of intractable, recent, simple fractures by the autoplasmic transplantation of bone. It is to be hoped that the methods therein described will largely replace the use of metallic foreign bodies for fixation in fractures of this character which require open operation.

The book is amply and admirably illustrated with original photographs and roentgenograms showing the methods employed and the results attained by the authors in their extensive experience.

Elementary Bacteriology and Protozoology. For the Use of Nurses. By Herbert Fox, M.D., Director of the William Pepper Laboratory of Clinical Medicine in the University of Pennsylvania. Second Edition, Revised and Enlarged. 12mo. 251 pages, with 68 engravings and 5 colored plates. Cloth, \$1.75, net. Lea & Febiger, Philadelphia and New York, 1916.

This work was designed as an elementary text-book of Bacteriology and Protozoology for nurses and for beginners, but it has also proven a useful book to the general practitioner. Without being technical, it gives a good idea of the nature of micro-organisms, and then discusses with more emphasis the ways in which bacteria pass from one individual to another, how they enter the body and act when once within, and their manner of exit. Such general information concerning the character of the disease process has been included as seemed necessary to clarify the nature of microbe action. In other words, the author has endeavored to show in the simplest manner how bacteria produce disease. That he has succeeded is shown by the favor with which the first edition was received and by the urgent demand for a new edition.

In the second edition much has been added concerning general disinfection, the transmission of infection, especially in regard to those diseases spread by insects, and the peculiar phenomena of hypersusceptibility, a subject which becomes wider in its significance as we learn more about it. Throughout the book such material has been included as was necessary to bring it up to date.

The Principles and Practice of Perimetry. By Luther C. Peter, A.M., M.D., F.A.C.S., Associate Professor of Ophthalmology, Philadelphia Polyclinic and College for Graduates in Medicine; Ophthalmologist to the Rush Hospital for Consumption and Allied Diseases. 232 pages, with 119 illustrations. Cloth, \$2.50 net. Lea & Febiger, Publishers, Philadelphia and New York.

A few outstanding facts regarding this new work are worthy of attention. It is the first book in the English language, so far as is known, devoted entirely to the subject of Perimetry. The needs for such a work are urgent because text-books do not deal with the fundamentals of perimetry and its principles, but confine themselves largely to the clinical findings in individual diseases. The student therefore has nothing to guide him in the taking of fields and the general pathology of fields.

The progress of the science of ophthalmology and the development of post graduate teaching have awakened new interest in perimetry as a

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refinement in diagnosis and a necessity in many obscure brain conditions. The allied branches of brain surgery, neurology and rhinology are demanding more careful study in perimetry in the brain conditions in which perimetry is essential for a diagnosis. This book will be found particularly valuable not only to the specialist in ophthalmology but to the physician or internist who owing to the great interest manifested in perimetry to-day is expected to make perimetric studies.

Persistent Coughs and Colds.—Colds that linger invariably owe their persistence to inability of the body to exert sufficient resistance to overcome germ activity. Recovery in consequence, is always largely a question of raising the general vitality and increasing bodily resisting power. To accomplish this, no remedy at the command of the profession is so promptly effective as Gray's Glycerine Tonic Comp. Under the use of this dependable restorative and reconstructive the appetite is increased, the digestion improved, the nutritional balance restored, and the vital resistance so raised that the body can control infectious processes, and establish a safe and satisfactory convalescence.

In the treatment of colds, therefore, "Gray's" can be relied upon to raise the defensive forces of the organism and fortify it against germ attack.

Some New and Important Iodine Preparations.—It is not too much to say that in recent years iodine has become an indispensable agent in skin and wound disinfection, and this in spite of the fact that the tincture of iodine commonly used for this purpose has a number of manifest disadvantages. For this reason the introduction of a new iodine preparation that not only obviates these objectionable features, but possesses many desirable qualities of its own, will be of general interest. This preparation, known as iocamfen, is based on the iodine solvent action of the liquid trituration product of camphor and phenol under suitable conditions and contains 10 per cent. free iodine. Iocamfen Ointment, containing 5 per cent. free iodine, will also be found to be much more efficient as well as agreeable than the ointment of iodine of the U. S. P. or its substitutes. Microscopic examinations show that in iocamfen ointment the iodine content is in a state of perfect solution. This fact alone explains why this new iodine ointment possesses such marked penetrating power. Moreover, its other constituents, camphor and phenol, increase its disinfectant action and render it distinctly analgesic.

The therapeutic indications of these products comprise all conditions in which the tincture or ointments of iodine are employed. We would urge our readers to send for literature on these new and very important iodine preparations to Schering & Glatz, 150 Maiden Lane, New York City, who manufacture them in the U. S. A.

Blair County Society.—The members of the Blair County Homœopathic Medical Society had the pleasure of listening to two very excellent and instructive papers by Drs. D. Bushrod James and Harry S. Weaver, of Philadelphia, at their regular monthly meeting, March 30. Subject of Dr. James' paper was "Late Gonorrheal Complications in the Female," and Dr. Weaver's paper discussed "Acute Sinusitis." Both papers were thoroughly enjoyed by all the members present.

J. W. Stitzel, Secretary.

Applicants for membership should sign the following blank and forward with check for Five Dollars to Dr. W. N. Hammond, 313 Weightman Building, Philadelphia, Pa.

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OF THE
STATE OF PENNSYLVANIA

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Five dollars a year.

The undersigned, a graduate of
of the year , *and practicing medicine at*
in the county of , *State of Pennsylvania, hereby makes application for*
membership in the Homoeopathic Medical Society of the State of Pennsylvania, and agrees to abide by its
Constitution and By-Laws if elected a member.

..... , M. D.

..... , M. D.

..... , M. D.

Members.

Vouchers

PENNSYLVANIA STATE NOTES

Edited by Ralph Bernstein, M.D.

The Homœopathic Medical Society of the County of Philadelphia held its regular monthly meeting at Hahnemann College, on Friday evening, March 10th, 1916, at 8.30 o'clock. Dr. Wm. S. Bainbridge, of New York, who has recently returned from a Survey of the Hospital, Red Cross and Sanitary Conditions within the War Zone, delivered an interesting lecture on "Personal Experiences in the War Zone," which he illustrated with lantern slides and which proved to be a very enjoyable feature of the meeting. The meeting was well attended and an enjoyable time was had by those present.

J. M. Kenworthy, M.D., Secretary.

The Clinico-Pathologic Society of Philadelphia held its regular monthly meeting at Hahnemann College, on Saturday evening, February 19, 1916, at 8.30 o'clock. The scientific program consisted of the following:

"The Importance of Thorough Rhinological and Otological Examination in Basal Fracture," G. W. MacKenzie, M.D.

"Secondary Suture," H. L. Northrop, M.D.

"The Diagnosis of Hodgkin's Disease," S. W. Sappington, M.D.

"A Method of Studying Isolated Involuntary Muscle Tissue with Laboratory Demonstrations," F. H. Widman, M.D.

The meeting was a thoroughly enjoyable one and was well attended.

B. K. Fletcher, M.D., Secretary.

The Homœopathic Medical Society of the Twenty-third Ward of Philadelphia held its regular monthly meeting at the office of Dr. C. E. Tegtmeier, 1237 Shackamaxon street, on Wednesday, February 16, 1916. The scientific program which was presented was an enjoyable one and much interest was manifested in the same. The meeting was attended by a large number of members.

J. D. Boileau, M.D., Secretary.

The Society of Surgery, Gynecology and Obstetrics held its regular monthly meeting at Hahnemann College, on Wednesday evening, March 22, 1916, at 8.30 o'clock. Dr. Augustus Korndoerfer, Jr., and Dr. A. B. Weber read papers which were ably presented and enjoyed by a large number of members present.

J. M. Kenworthy, M.D., Secretary.

The Germantown Homœopathic Medical Society of Philadelphia held its regular monthly meeting at the Hotel Majestic, on Monday evening, February 21, 1916, at 9. o'clock. Dr. Dndley J. Morton presented a paper the title of which was "Some Common Affections of the Feet, and Their Treatment," the same being much enjoyed by a large number of members present. Supper was served at 11 o'clock, to which all did justice.

C. B. Hollis, M.D., Secretary.

The Women's Homœopathic Medical Association of Pittsburgh, Pa., held its regular monthly meeting at the office of Dr. Anna Johnston, 5016 Liberty avenue, on March 3, 1916, at 8 P. M. Dr. Johnston presented a well prepared paper, after which a hearty discussion took place. Several interesting clinical cases on adenoids and tonsils were reported, after which the meeting adjourned.

Anna Johnston, M.D., Secretary.

Personals.—American Organ Players' Club gave the fourth series of free organ concerts at Assembly Hall, on Thursday evening, March 2, 1916. at 8.15 o'clock. Dr. F. O. Nagle and Dr. W. T. Killian, two homœopathic physicians of Philadelphia, contributed numbers for the occasion.

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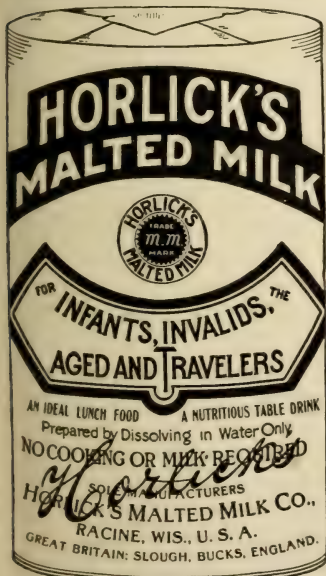
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Coryza—Acute Nasal Catarrh.—This condition is manifested by a local congestion of the nasal mucous membrane, with an infiltration of serum into the tissue and later an exudation on the part of the mucous membrane. The local treatment calls for a remedy capable of relieving the engorgement by exosmosis, which can never be achieved by the use of acid or astringent preparations. The use of Glyco-Thymoline in these cases purges the mucous membrane, relieving the congestion, and then by stimulating the local capillary circulation to renewed activity prevents a reengorgement.

American Institute of Homœopathy.—It is the aim of the Press Committee to give the American Institute extensive publicity through the Associated Press and International News, which control practically all the newspapers of the United States.

You are scheduled for a paper at the Baltimore meeting. Will you kindly send a copy of your paper to Dr. Scott Parsons, Wall Building, St. Louis, before June 1st? Extracts will be made and due credit given you. These extracts must be in the hands of the press before June 10th.

My dear Doctor:

There will be a meeting of the Congress of States at the Baltimore session of the American Institute, Tuesday, June 27th, at 9 A. M.

At this meeting the question of federating our State and local societies with the American Institute will be considered. Ways and means for bringing about this most important movement will be presented, and it is desirable that every State and local society have representation at this Congress.

Will you kindly appoint two or more delegates from your society who are members of the American Institute, and whom you know will attend?

Federation has the approval of the Board of Trustees of the American Institute and has been sanctioned by the majority of the State societies, and we are desirous to launch the project at Baltimore.

Will you kindly give this your earnest consideration?

Faternally yours,

Scott Parsons,

Special Representative, Council of Medical Education.

"Spring Tonics."—In the good old days it was thought that winter left everyone run down and in urgent need of a tonic, and the ingenuity of the doctor as well as house-wife was drawn upon to provide a tonic that would be potent as well as palatable. But to-day the skill of the manufacturing chemist has made it possible to employ that best of tonics, cod liver oil, in the spring, summer and whatever other seasons the patient may demand it. In the form of Cord. Ext. Ol. Morrhuæ Comp. (Hagee), the profession has at its command a palatable cod liver oil preparation that introduces into the system every nutritive quality of the crude oil.

COLLEGE NOTES

Hahnemann Medical College and Hospital of Philadelphia

Edited by C. SEAVER SMITH, '16

Institute.—Dr. W. A. Dewey gave an interesting and unusual lecture to the members of the Institute at the meeting of February 17th. Contrary to the common order of things, by which we pay ten cents to see a "Movie," this time we paid ten cents if we didn't. The lecture was an eye-opener for the students, showing the wide spread of homœopathic institutions in the leading civilized countries of the world, and just how they compared with those of the old school. As pictures of the hospitals were shown, Dr. Dewey described them briefly, and told of the work done in each. Most of them he has visited personally, which made it doubly interesting.

Homœopathy has no need to be ashamed of the work it is doing. The hospitals in foreign countries are all on a good basis, and can present good records of the cases cared for, and in the United States, besides having the largest, we have also the finest hospital. The Metropolitan, in New York City, with 1,700 beds, at present stands as the greatest, and the Homœopathic Hospital at Springfield, Mass., endowed by Wesson, of "Smith & Wesson Arms Co." fame, at a cost of \$7,000 per bed, is the most expensive.

He gave some interesting statistics on death rate in purely homœopathic institutions, and those which are homœopathic but receive cases under the care of the allopaths, the comparison in every case showing well for us.

The lecture was entertaining, instructive and well received by all who were fortunate enough to hear it.

At the next meeting of the Institute, Dr. J. M. Baldy, president of the State Board of Examiners for Medical Licensure, has kindly consented to speak. Dr. A. Parker Hithens, director of the Biological Laboratories of the H. K. Mulford Company, will also be present to give the men an idea of this extensive and important work.

Seniors.—The Senior Class gathered at the home of Dr. Clarence Bartlett on February 17th, for its fortnightly medical conference. Two very interesting papers were presented, namely, "Homœopathic Therapeutics in the Practice of Surgery," by Charles A. Rowland, and "The Modern Scientific Homœopathist," by Thomas M. Snyder.

After a general discussion by the class, and some appropriate criticism by our professor, we terminated the scientific work of the meeting and devoted the remainder of the evening to entertainment, or rather, let us say, to the thorough enjoyment of the doctor's hospitality.

At the first medical conference in March, Harry Metzger presented a paper entitled, "The Use of Diphtheria Antitoxin as a Means of Prophylaxis against and a Cure of Diphtheria." The paper was thoughtfully prepared, well-written, and forcibly presented. The eager discussion that followed cleared up a few hazy points. Chas. W. Lane, who was scheduled to read the other essay of the evening, was unable to be present on account of his large and confining obstetrical practice.

Sophomores.—Dr. Weaver gave the Sophomores a very pleasant sur-

prise when he presented each member of the class with a ticket for an organ recital, entitled "The Storm," given at the Baptist Temple. Everyone present spent a very enjoyable evening. Dr. Weaver has a deep interest in all the boys of "Old Hahnemann," and does everything in his power to make their college life both profitable and pleasant.

Freshmen.—In all laboratories accidents are bound to happen. For the safety of yourself and your classmates, be careful.

In a previous issue of the "Hahnemannian Monthly" it was stated that a progressive movement was being made. Now, look at our Glee Club, our Orchestra, the entertainment given by them, the Students' Room, etc. A little "pep" doesn't cost a cent, but the reward for it is very magnificent. Keep it up, fellows.

In the same issue our Class Song appeared. Mr. Taggart does not wish to present it until he can find time to write suitable parts for it. He has been very busy with the Glee Club, the success of which is due to him. Congratulations, Mr. Taggart! We expect, however, to deliver the Class Song at an Institute meeting before the College closes for the summer.

Here and There about College.—Dr. Sarah M. Hobson, of Chicago, was a very welcome visitor at the College recently. Dr. Hobson is editor of the American Journal of Homœopathy. Her companion was Miss Bowman, who is associated with the Bowman Printing Company, the publishers who print the Journal.

Alumni.—Among the Alumni who visited the College during the past month were: Drs. Haman, of Reading, Pa.; W. A. Schmitz, Middletown, N. Y.; H. L. Schaffer, Pittsburgh, Pa.; Wm. A. Karouski, Panama Canal; Chas. P. Rudolph, Pittsburgh, Pa.; Roger F. Fox, Gloucester, N. J.; A. M. K. Maldeis, Camden, N. J.; F. H. S. Murray and H. T. Ryan, from the Children's Homœopathic Hospital; H. F. Kline, from the Metropolitan Hospital, New York; C. M. Ingram, E. P. Kitchen, Wm. G. Schwartz, and Friedman, of Philadelphia; Robert White, of Scranton, and G. W. Heck, of Coatesville, Pa.

Institute Banquet.—The Institute of Hahnemann Medical College held its annual banquet on the evening of February 21st, at the Bingham Hotel. The entire roof garden was given over for the use of the banqueters. The Committee on Decorations, with the aid of several other students, had tastefully decorated the dining room with the Hahnemann colors, blue and gold, which, with the addition of college penants, university banners, and fraternity emblems, made the room very attractive. Over the platform was a large blue and gold banner, with the letters H. M. C. formed by electric lights.

While the diners were finding their places, the orchestra played several selections from the popular plays of the day. Just before the guests took their places, the orchestra struck up "Fair Hahnemann," which was sung with great enthusiasm by all present. To the orchestra the assembly was also indebted for the music between courses, but not for all the noise, because the usual noise-makers—horns, bells, squawkers, clappers, etc., were very much in evidence, in addition to a huge electric Klaxon horn,

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whose control button was in the hands of our Professor of Dermatology. Caps of various colors, shapes, sizes and designs were distributed.

During the evening, our Glee Club entertained us with several good songs. Joel M. Melick, of the Freshman Class, gave "The Shooting of Dangerous Dan Magrew" in his usual effective style.

Hon. W. H. Howell, M.D., of Wilmington, Delaware, was toastmaster of the evening, and successfully fulfilled his duty. He first introduced a "man who was insane, or at least crazy—a Hahnemanniac about two things, namely, the Hahnemann Medical College, and its students—Dr. Pearson."

Dr. Pearson said in part: "Hahnemann Medical College is a college of which you all may be proud. It has on its teaching staff two famous anatomists, Dr. R. B. Weaver and Dr. H. L. Northrop. This is the foundation of surgery, in which there is no instructor superior to Dr. Wm. B. Van Lenep as a clinical teacher. Probably the best organized department is that of Pathology. We now have a Nose and Throat Clinic which is second to none in the country, in point of equipment and service of physicians. The Orthopædic Clinic is now right up to snuff, to say nothing of other departments."

With a few good natured knocks at his profession, Dr. Howell introduced our loyal lawyer friend, Nathan M. Griffith, Esq. Mr. Griffith soon was on even terms with the politician, however. Among other things he said: "We are here all boys, all students, all kings, but best of all, United States citizens. It is up to you students to elevate your profession and so to elevate the institution which you represent. If the old Arab custom of eating salt together makes friends, surely then the professors and the students of this college are friends. As you look forward or as you look backward, the word 'Hahnemann' will be your goal and your slogan."

Dr. Howell spoke of Dr. Northrop as "only a little teacher twenty-two years ago, but now a wizard of surgery." Dr. Northrop, in his inimitable manner, struck the note of loyalty to country and to Alma Mater in the heart of each man present. In part his talk was as follows: "Let us have for our slogan to-night, 'Joy, temperance and repose slam the door on the doctor's nose.' A sign we frequently seen on the street is 'Men Wanted'; men of good character, etc., for the Army and Navy of the United States.' A visitor at Sparta once asked a friend there, where the walls of Sparta were. The friend took the visitor to the grounds where the Spartan youths were training. 'There are the walls of Sparta,' he replied. When Dickens visited this country he was going up the Mississippi River by boat with a friend. He attempted to light one of the then new matches. After several trials without success, he threw the stick into the river, and exclaimed with disgust, 'Who ever knew anything that an American invented to succeed?' His friend remarked quietly, 'Oh yes! The Declaration of Independence.' 'I am a Roman citizen' was the proudest title of the world in the past; to-day the proudest title of the world is, 'I am an American citizen,' for it means emancipation and freedom of thought, will and action. So it is a proud title to be called 'An Alumnus of Hahnemann Medical College of Philadelphia.' There should be a sign, 'Men Wanted for the Medical Profession'; Men wanted for the Hahnemann Medical College; students between the ages of seventeen and thirty—exceptional opportunities, success guaranteed on account of the excellent course given, if the men have good habits; for remove the 'h' and there still is left 'a bit'; remove the 'a' and yet a 'bit' remains; remove the 'b', and there

you still have 'it'; even remove the 'i' and it is not t-totally gone. We want men of good habits. Well may our minds be proud of the star that is leading us on to a blessing and a pleasure, which I wish to everyone of you."

Dr. Walter S. Cornell, our friend in need, was the next speaker. He handed bouquets right and left to our men, with a few sidelights on their human characteristics. He included in this bombardment Drs. Haines, Bernstein, Betts and Hinkle. His favorite subject, of course, would creep out, for evidently he loves his work. Again the note of the popular nationwide idea of "preparedness" was struck. "Good health is the essence of preparedness. The essentials of public health are rest, fresh air, food, and exercise in proper amounts. The medicine of to-day is becoming, and the medicine of to-morrow will be, preventative. We all can succeed in making good by beginning right."

Dr. Howell said that the author of this party, or at least the one that selected the speakers, must have come from Spain or Mexico, where they knew so well how to handle the bull. He then suggested a rising vote to Dr. Bernstein. The song "Hahnemann" was then sung by all, and the party broke up at midnight. The majority vote was that it had been the best banquet to date.

Institute.—After the Orchestra had given a snappy selection, the regular business of the March meeting of the Institute was rapidly attended to. The Glee Club pleased the members with a medley.

Dr. J. M. Baldy, president of the Bureau of Medical Licensure, was introduced by President Ferguson. His talk centered about the duties of an interne.

The other speaker of the evening was Dr. A. Parker Hithens, director of the Biological Laboratories of the H. K. Mulford Company. His was an illustrated lecture on the subject, "The Production of Anti-toxins and Vaccines." After paying our professor of pathology, Dr. Sappington, several compliments, and telling us how fortunate we were to have him as an instructor, Dr. Hithens launched out on his talk.

Students' Room.—Class rooms, laboratories and equipment are all important in a medical school. We have these, and are improving them at every opportunity. These features are for work. Work constitutes the greater part of our (the students') day, but why not, in the short time allotted for rest, have a decent place to rest in? It was with this idea in mind that the Orchestra and Glee Club, backed by the faculty and supported by the alumni and friends, gave a concert and realized money enough to handsomely furnish a students' lounging or resting room. Before this we spent the noon hour counting paper bags and orange peels on the floor of a dingy, poorly lighted room down stairs. That dingy room now is a veritable Utopian smoking room, with all the comforts of home. Beside, new electric lights, new tables and chairs, finer details have been carried out, and a really wonderful and artistic selection of pictures cover the walls. Curtains have been put in the windows, cuspidors and waste paper baskets under the tables, and blotters, ink-stands, and ash-trays on the top of them. Several weekly and monthly magazines are furnished, and show from their wear considerable use. Beautiful ferns, placed in the window sills, rustle in the spring breezes; for all of which we are indebted to Dr. Ralph Bernstein, who attended to the details.

The rules of the Room Committee are respected and carried out; so it is always a pleasure to bring a friend, an alumnus, or a visitor to this room and proudly show him where we spend our few leisure moments. To Paul C. Wittman, of the graduating class, goes the credit for the original suggestion of the "Students' Room."

Pre-Medicals.—With the arrival of spring and the coming pleasant days, the Pre-Medical Class look forward with joy to the field botanical trips in store for them.

These trips will be a source of enjoyment and recreation, and will be a most interesting study. To see the medicinal plants that grow or may be cultivated in this climate, in their native haunts, and in the true growing or living state, will help immensely in "driving home" the essential facts in relation to the plants.

The study of Medical Botany under Dr. Bornemann, lays some foundation for the future and deeper knowledge of medicine. This is accomplished by familiarizing the class with the appearance of the plants, giving them the full official names, and medicinal value, as well as the chief drug constituents and principal uses of these bounteous gifts of the Creator.

Following very interesting talks on heating and ventilating, by Dr. Gordon, the Pre-Medical Class visited the Wanamaker store, which is considered as having a model system of heating and ventilation.

On March 16th, under the leadership of Mr. Bunting, of the above firm, the class made their tour of inspection, which was most interesting and instructive. The methods of washing and heating the air and its distribution to all parts of the big store were fully explained. The wireless station and its mode of operation were shown. Then the boys were conducted out onto the roof of that large store, and there obtained a bird's-eye view of the big city. Leaving the store, and going to their power house, situated on the opposite side of Thirteenth street, where the heating and power plant and vacuum cleaning system was explained.

The class is looking forward to a trip to the Filtration Plant at Torresdale, following the interesting talks on water purification by Dr. Gordon.

The class has been given these most interesting talks on proper heating and ventilation and water purification, all of which are indeed very important in Public Health and Sanitation, and might rightly come under the topic of Preventive Medicine.

Visitors.—Dr. A. Nogueira de Silva, Rio de Janeiro, Brazil, visited the college and hospital recently. He is on a tour of the United States to get ideas for a new hospital to be erected in his city. He is a homœopathic physician, first secretary of the "Instituto Hahnemanniano do Brazil," assistant physician of the Homœopathic Ward of the Hospital of Santa Casa de Misericórdia, Professor of the "Faculdade Hahnemanniana," physician in charge of the Homœopathic Ward of the Hospital de Mariula.

The other visitors at the college during the month included Drs. Terry A. Walter, Langhorne, Pa.; J. Herbert Moore, Boston, Mass.; W. W. Nuss, Towanda, Pa.; Frank B. Edmundson, Pittsburgh, Pa.; J. M. Ellenberger, New York City, N. Y.; W. H. Nugent, New Haven, Conn.

THE HAHNEMANNIAN MONTHLY NEWS AND ADVERTISER

A Medical Newspaper

MAY, 1916

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Cancer of the Stomach. A Clinical Study of 921 Operatively and Pathologically Demonstrated Cases, by Frank Smithies, M.D., Gastro-enterologist to Augustana Hospital, Chicago, with a Chapter on the Surgical Treatment of Gastric Cancer, by Albert J. Ochsner, M.D., Professor of Clinical Surgery in the University of Illinois. Octavo of 522 pages with 106 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, \$5.50 net; Half Morocco, \$7.00 net.

The profession is fortunate in the publication of a work which gathers together in one volume the most up-to-date and practical information on this very important subject. Medical men have realized for a long time the inadequacy of the older methods employed in the diagnosis of cancer, and we venture the opinion that a work of this character which fills a long felt want would receive a warm welcome from the profession. The author has been fortunate in being able to observe and secure careful records of nine hundred and twenty-one demonstrated instances of gastric cancer and has presented material gathered from these sources in a way that is most instructive and valuable.

International Clinics: A Quarterly of Illustrated Clinical Lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediatrics, Obstetrics, Gynecology, Orthopaedics, Pathology, Dermatology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene, and other topics of interest to students and practitioners. By leading members of the medical profession throughout the world. Edited by Henry W. Cattell, A.M., M.D., Philadelphia, U. S. A., with the collaboration of Sir William Osler, Bart., M.D., F.R.S.; Chas. H. Mayo, M.D., Rochester; Frank Billings, M.D., Chicago; A. McPhedron, M.D., Toronto; John G. Clark, M.D., Philadelphia; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harrold, M.D., London; Richard Kretz, M.D., Vienna, with correspondents in Montreal, London, Paris, Leipsic, Brussels and Geneva. Vol. IV. Twenty-fifth series, 1915. Philadelphia and London, J. B. Lippincott Co.

This volume of *International Clinics* is the twenty-fifth anniversary number and well upholds the reputation of the Clinics for scientific and practical information. Among other important articles we note one by Sir William Osler on "The Coming of Age of Internal Medicine in America"; "The Cause and Cure of Pellagra"; "The Problems of the Irregular Heart"; "The Duodenum in Health and Disease"; "Auto-intoxication"; "Visceroptosis." Also four important articles dealing with the progress of neurology in obstetrics, in gynecology and in surgery. The practical and up-to-date character of this series makes its presence a necessity in the laboratory of every up-to-date physician.

Infant Health. A Manual for District Visitors, Nurses and Mothers. By J. (Shawnet) Cameron MacMillan, C.M.B., A. R. San. I. Lecturer (First Class Diploma) Sick Nursing and Popular Health, Edinburgh, Etc. London, Henry Frowde and Hodder and Stoughton, Oxford University Press, Warwick Square, E.C., and 35 West 32d Street, New York City.

This little manual is intended to supply such information as mothers and nurses may need in giving intelligent care to their children. The author is a woman of large experience and the manual can be recommended as full of sound knowledge and common sense.

Progressive Medicine—A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics, Materia Medica and Diagnosis at the Jefferson Medical College, Philadelphia, etc., etc. Assisted by Leighton F. Appleman, M.D., Instructor in Therapeutics, Jefferson Medical College and Hospital, Philadelphia, etc., etc. Volume I, March, 1916. Publishers, Lea & Febiger, Philadelphia, Pa.

This issue of *Progressive Medicine* contains much of value to the surgeon as well as to the internist. Dr. Charles H. Frazier has given a very thorough consideration to the subject of "Wounds of the Head," and a special review of the foreign literature which, on account of the war, contains numerous references to this subject. Dr. George P. Miller on the subject of "Surgery of the Thorax" gives a very critical summary of the literature dealing with empyema, abscess of the lungs and other purulent conditions met with in the thorax. Under "Medical Diseases," Dr. Ruh-

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rah takes up the subject of intestinal parasites, amebic infections and related conditions. His discussion of the Shick reaction which has proven of considerable practical value in the management of diphtheria, is quite complete and instructive. Dr. Crandall gives a very timely and critical review of the literature of diseases of children which should be of great value to the medical practitioner now that we are approaching the summer months.

Therapeutics of the Respiratory System. Cough and Coryza, Acute and Chronic. Repertory with Index. Materia Medica with Index. By M. W. Van Denburg, A.M., M.D. "Similars can be cured by similars." Proof: An intelligent application of the drug-symptoms in this book. 782 pages. Cloth \$5.00 net. Philadelphia: Boericke & Tafel. 1916.

This book is a repertory of symptoms relating to the diseases of the nose, throat and bronchial tubes together with a brief summary from the materia medica of drugs commonly useful in diseases of these organs. The author of this work has certainly made a very complete and comprehensive summary of homœopathic therapeutics as related to the respiratory tract.

Treatise on Fractures. By John B. Roberts, A.M., M.D., F.R.C.S., Professor of Surgery in the Polyclinic and College for Graduates, Philadelphia, etc., etc, and James A. Kelly, A.M., M.D., Attending Surgeon to St. Joseph's, St. Mary's and St. Timothy's hospitals, etc. With 909 illustrations; Radiographs, Drawings and Photographs. Price \$6.00. J. B. Lippincott, Philadelphia and London.

The universal use of the X-rays as a means of accurate diagnosis has brought about a complete revolution in the treatment of fractures during the past decade. This has been particularly the case in regard to the operative treatment of fractures in which field of surgery tremendous advances have been made. The authors of the volume now before us have endeavored to present the up-to-date diagnosis and treatment of fractures in a concise manner for the use of the medical student and general practitioner. The book is divided into twenty-nine chapters and the various fractures are taken up separately and the symptomatology, diagnosis, prognosis and treatment thoroughly discussed. One striking feature of the work is the number of and the excellence of the work on the illustrations amounting to over nine hundred in all. These illustrations have been carefully selected and serve to throw such light on the text as to make the work readily understood by those who have no special knowledge of the subject. The section dealing with fractures of the cranium is especially complete and valuable.

Sexual Impotence. By Victor G. Vecki, M.D., Consulting Genito-Urinary Surgeon to the Mt. Zion Hospital, San Francisco. Fifth Edition, enlarged. 12mo. of 405 pages. Philadelphia and London: W. B. Saunders Company, 1915. Cloth \$2.25 net.

The popularity of this volume is attested to by the fact that it is now in its fifth edition. This popularity is no doubt due to the fact that the author has approached the subject from an anatomical standpoint and at the same time has not hesitated to make use of the most recent aids to treatment including psychotherapy. It is a satisfaction to be able to recommend to the profession a work on this subject that is at once rational and practical.

Applicants for membership should sign the following blank and forward with check for Five Dollars to Dr. W. N. Hammond, 313 Westminster Building, Philadelphia, Pa.

THE HOMŒOPATHIC MEDICAL SOCIETY

OF THE
STATE OF PENNSYLVANIA

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Any Physician of good moral character, who has received the degree of Doctor of Medicine from some regularly incorporated Medical College, and who subscribes to the doctrine "SIMILIA SIMILIBUS CURENTUR," may be elected a member of this Society, upon recommendation of the Board of Censors.
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*The undersigned, a graduate of _____
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membership in the Homœopathic Medical Society of the State of Pennsylvania, and agrees to abide by its
Constitution and By-Laws if elected a member.*

, M. D.

_____, M. D.

_____, M. D.

Members.

Vouchers

The Tongue.—Reed and Carnrick have distributed to physicians a valuable little booklet on this subject, with colored plates, expressly prepared, which are in every way faithful portrayals of the various conditions depicted.

The Liver in Autotoxic Ills.—The liver, as the largest gland in the body and the one that is called upon to do the most work, is to a certain extent both the "clearing house" and the "depository" of the body's nutritional reserve. It is easy to understand, therefore, how even a slight disturbance of its functions, may be followed by serious consequences throughout the whole organism.

Realizing this, it is little wonder that the trained clinician is so keen and prompt to take steps to prevent the continuation of hepatic derangements. Undoubtedly it is zeal in this direction that has led so many physicians to prize chionia, for they have found it a remedy that can be relied upon not only to restore and maintain hepatic activity, but happily without exciting excessive or objectionable bowel movement. The exceptional therapeutic efficiency of chionia, therefore, in all functional disorders of the liver has made it one of the most valuable and practically useful remedies at the command of the practitioner who realizes the paramount importance of assuring hepatic activity, especially in ill of an auto-toxic character.

Intestinal Elimination.—To accomplish intestinal elimination there is no remedy more promptly effective than prunoids. This is attained, not only with surprising thoroughness, but with little activity and both the secretory and muscular function of the intestinal canal is restored with gratifying permanency. Prunoids, moreover, has the especial advantage that it does its work without any of the griping or reactionary constipation common to other cathartic measures. One to three at bedtime can be depended upon to move the bowels without exciting excessive peristalsis.

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Pollen Extracts in Hay Fever.—An illuminating pamphlet on pollen extracts and their adaptability to the prophylaxis and treatment of hay fever comes from the press of Parke, Davis & Co.

"As regards the symptom complex known as 'hay fever,'" says the booklet by way of introduction, "there is no doubt in the minds of the majority of authorities at the present time that it emanates from the pollens of the flowers of various grasses, shrubs and trees.

"It has been established by Freeman, Goodale and others, as a result of much experimental and clinical work, that individuals who are susceptible to the proteids of one pollen are sensitive to proteids of other pollens of the same family, and that protection can be produced in the

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majority of patients by immunization with the extracts of the pollen of the most frequently encountered representative members of that family. Hence, ragweed pollen extract will protect against members of the family of compositae, and timothy pollen extract will protect against members of the family of graminaceae. These two extracts, therefore, will be found suitable for prophylaxis and treatment for the large majority of cases of hay fever encountered in America."

In addition to the two extracts mentioned in the foregoing, announcement is made of a third product, pollen extract combined.

The prophylactic and therapeutic use of the extracts is, of course, fully covered in the pamphlet, which also contains excerpts from articles by various well known authorities—Ulrich, Minnesota; Freeman, London; Lowdermilk of Kansas, Koessler of Rush Medical College (Chicago), Cooke of New York City, and others. It is not extravagance to say that the booklet, which bears the title "Pollen Extracts," is a valuable contribution to our current literature on the subject of hay fever. A copy of it may be obtained on request from Parke, Davis & Co., Detroit.

"**Therapeutic By-Ways**" is the title of Boericke & Tafel's latest publication. It is a collection of about 1,000 hints gathered from ancient and modern literature, journals, transactions, personal talk, and from popular botanical, allopathic, eclectic and homœopathic sources. It is certainly interesting and there is probably not a physician who could not get some helpful ideas from its pages. The great bulk of the matter is such as you will not find in the textbooks, as is indicated in the titles. The authorities range from "they say" of folk lore to eminent physicians. Anshutz, who collected "New, Old and Forgotten Remedies," is again the collector. 195 pages. \$1.00.

PENNSYLVANIA STATE NOTES

Edited by Ralph Bernstein, M.D.

The Clinico-Pathologic Society of Philadelphia held its regular monthly meeting at Hahnemann College, on Saturday evening, March 18, 1916, at 8.30 o'clock an interesting scientific program was presented and was as follows:

"The Pathology and Treatment of the Thrombotic Pile,"

Dr. C. A. Bigler, Jr.

"The Differential Diagnosis of the Skin Diseases (Lantern Demonstration) Dr. Ralph Bernstein

"A Paper on Hypopituitarism" Dr. C. S. Raue

Several interesting clinical cases were discussed at this meeting, which was an enjoyable one and was well attended.

B. K. Fletcher, M.D., Secretary.

The Germantown Homœopathic Medical Society of Philadelphia held its regular monthly meeting at the Hotel Majestic, on Monday evening, March 20, at 9 o'clock. The scientific part of the program consisted of a symposium on "Acute Diseases of the Nasal Accessory Sinuses," and was as follows:

"Diagnosis" H. S. Weaver, M.D.

"Anatomy" I. G. Shallcross, M.D.

"Ear Complications" G. J. Palen, M.D.

"Local and Internal Treatment"George McKenzie, M.D.

"Serum Therapy"Fred W. Smith, M.D.

The meeting was well attended and was a thoroughly enjoyable one.

C. B. Hollis, M.D., Secretary.

The Homœopathic Medical Society of the Twenty-third Ward of Philadelphia held its regular monthly meeting at the office of Dr. F. C. Emery, Fox Chase, Pa., on Wednesday, March 15, 1916. "Pneumonia" was the title of a well prepared paper which was read and heartily discussed. The attendance at this meeting was large and an enjoyable time was had by all present.

J. D. Boileau, M.D., Secretary.

The Homœopathic Medical Society of Chester, Delaware and Montgomery Counties celebrated Hahnemann's birthday, in Chester, Tuesday, April 11, 1916. The celebration started at one o'clock on the Washington House. Dr. George W. MacKenzie, of Philadelphia, and Dr. G. C. Webster, Jr., of Chester, presented interesting papers on "Sinusitis, Diagnosis and Treatment," after which Dr. F. S. Pounds, of Chester, delivered an address in which he lauded the life and work of Hahnemann, and it plainly showed how he is still cherished in the memories of all true homœopaths by the large number of physicians present, all of whom manifested keen interest in the celebration. After the celebration was brought to a close a planked shad dinner was served to all present and to which all did justice. The physicians then took an auto trip to Upland and visited the Crozer Hospital, where Dr. H.L. Northrop, of Philadelphia, gave a demonstration of the reduction of congenital sub-laxation of the hip, by the Lorenz method. All present were well pleased with the celebration, it being one of the largest ever held.

I. Crowthers, M.D., Secretary.

The Central Pennsylvania Homœopathic Medical Society held its spring meeting at the Bolton House, Harrisburg, on Thursday, April 13, 1916. Dinner was served at 12 o'clock, after which the regular business meeting was held. Dr. E. S. Snyder, of Lancaster, Pa., delivered the inaugural address in a very eloquent manner. Dr. J. M. Heimbach, of Kane, Pa., president of the Homœopathic State Medical Society, held the attention of every member present while he delivered his address on "State Work." This proved to be quite an interesting feature of the meeting. Dr. J. T. Burnite, of Harrisburg, Pa., added to the program by reading a paper, the title of which was "Personal Reminiscences," the same being thoroughly enjoyed. The meeting was one of the most successful ever held and was attended by a large number of physicians.

G. A. Styres, M.D., Secretary.

The Hahnemannian Medical Society of Berks County held its annual dinner at the Berkshire, Reading, Pa., on Thursday, March 19, 1916. Dr. D. C. Kline, filled the chair of toastmaster with much grace and dignity, and those responding to toasts were as follows: Dr. Oliver S. Haines, Philadelphia; Dr. Wm. C. Hunsicker, Philadelphia; Dr. Wm. Hillegas, Philadelphia; Dr. Henry I. Klopp, Philadelphia, and Dr. Rufus B. Weaver, Philadelphia. There was a large number of physicians present and a merry time was had by all present.

E. K. Golding, M.D., Secretary.

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Typho-Serobacterins Mixed (mixed sensitized typhoid vaccines) are recommended by Castellani, Broughton-Alcock, Besredka, Gay, and other prominent authorities, since they afford immunity against the typhoid bacillus and the paratyphoid A and B, which latter infections cause about ten per cent of cases usually diagnosed as typhoid.*

Typho-Serobacterins (sensitized bacterial vaccines), being saturated with specific antibodies, are attacked by the complement and taken up by the phagocytes much more rapidly than unsensitized vaccines.

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	First dose	Second dose	Third dose
Bacillus typhosus....	1000	2000	2000 million
B. paratyphosus "A"	500	1000	1000 million
B. paratyphosus "B"	500	1000	1000 million

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Full literature mailed upon request.

* British Medical Journal, 1915, 1445; Jour. Royal Army Med. Cor., 1911, XVI; Press Medicale, Feb. 10, XXIV, No. 8, p. 5784; Lancet, Sept. 19, 1914; Jour. A. M. A., June 26, 1915, editorial; Amer. Jour. Med. Science, 1915, CXLIX 406; Jour. A. M. A., August 7, 1915; Jour. A. M. A., July 24, 1915. † Am. Jour. Med. Sci., 1915, CXLIX 406.



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The Women's Homœopathic Medical Association of Pittsburgh, Pa., held its regular monthly meeting at the office of Dr. Mary J. Cochran, 478 Bayne avenue, Bellevue, Pa., on Thursday, April 6, 1916, at 8 P. M. Dr. Mary Coffin and Dr. Clara Williams read papers which were very interesting, after which a hearty discussion took place. The meeting was an enjoyable one and was well attended.

Anna Johnston, M.D., Secretary.

The Philadelphia Society for Clinical Research held its regular monthly meeting at the home of Dr. W. M. Hillegas, on April 26th. The paper presented by Dr. Hillegas on "The Treatment of Hay Fever by Desensitization of the Nasal Mucosa" was thoroughly discussed by the members.

E. G. Muhly, M.D., Secretary.

The West Philadelphia Clinical Club held its regular monthly meeting on April 5th, at the West Philadelphia Homœopathic Hospital. Dr. Wm. D. Culin read a paper on "Methods of Diagnosis in Pelvic Diseases of Women."

H. I. Evans, M.D., Secretary.

Allegheny Society.—On April 26th, the Allegheny County Homœopathic Medical Society held a social meeting which was in the nature of a testimonial dinner to Dr. Walter F. Edmundson, who has completed his forty-fifth year in the active practice of medicine.

May 17th the regular meeting of the Allegheny County Homœopathic Medical Society was held. The paper for the evening was by Dr. T. Perrine Edmundson, entitled "The Leucocyte Count in Abdominal Infections."

Charles A. Ley, M. D., Secretary.

Personals.—Dr. A. P. Gardner announces the removal of his office on April 1st, to rooms 400-401 Dime Bank Building, Scranton, Pa.

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COLLEGE NOTES

Hahnemann Medical College and Hospital of Philadelphia

Edited by C. SEAVER SMITH, '16

Institute.—At the April meeting of the Institute the annual election of officers was held. The officers for next year are: R. A. Walther, president; R. B. Brown, vice-president; M. J. Pierson, secretary, and A. K. Lotz, treasurer. Considerable important business was transacted. The Orchestra played several selections.

Through the efforts of some of our students, an alumnus of Franklin and Marshall College, A. C. Schiedt, Ph.D., Sc.D., B.F., Tackenthal Professor of Biology, was induced to address the meeting. Dr. Schiedt is a native of Germany, and it might be of interest to know that his father was a celebrated physicist and made the first correct high power

microscopic lens. His uncle is Karl Zeiss, the manufacturer of the well-known Zeiss blood counting apparatus. He studied biology under the tutorship of Ernst von Haeckel, whose "Riddle of the Universe" is so well known to scientific readers, and anatomy under the celebrated von Hoffman. As a teacher of science for the past thirty-five years, he has prepared some of the foremost and leading men for the medical profession.

The title of Dr. Schiedt's paper was "The Sympathetic Nervous System and the Emotions." The author's tremendous amount of research work and profound thinking in the preparation of such an ultra-scientific paper, mark him as one of the intellectual giants, a notable and worthy representative of his race; a man whose unselfishness during many years of devotion to his chosen calling has resulted in untold good to the young men of America who were fortunate enough to be his pupils. He has fostered the spirit of thoroughness and love of science in the bosoms of many, and it is indeed a triumph for the student body of the Hahnemann College, and the officers of the Institute are to be congratulated, in being able to secure a man of his standing to honor them with his presence.

And now, as a parting thought from the writer, who soon expects to leave these halls of learning, but who will never forget the obligations which he owes to dear old Hahnemann, he would suggest to the new officers that many men of large calibre, giants intellectually, are harbored within the classic halls of many of our colleges in this great State, and that efforts be put forth next year to have different representatives of these various colleges appear before the Institute, inasmuch as it will serve not only as a most instructive entertainment, but will tend to draw closer bonds of union between our beloved institution and other institutions of learning. It will be a common meeting ground for medicine and the Humanities, and much good will come to both as a result.

Dr. Schiedt's address appears in another part of the journal.

Dr. Riley, of Fulton, Missouri, gave a short talk on "The Advantages of Settling in a Small Town" to the students recently. He told how his practice had increased from \$5.00 the first month to \$25.00 the second, \$50.00 the third, and so on, until he made \$9,000 the third year.

"This experience of mine is possible of repetition in many a town of 1,500 in Missouri. This is considerably over the average practice in the United States, namely, \$750. Ambition, personality, and the ability to do in the opportunity in which you are, determines your success. In the city you are overshadowed by great men, who profit by your experience when you are in trouble. The extent to which ability can be developed depends upon opportunity.

"Preparation is absolutely necessary, and when in practice there is need for constant study. The location and surroundings are very important factors; any type of medicine is ours as well as it is the old school's, and in addition we have our specialty of internal curative medicine."

Coatesville Trip.—On Thursday, April 6th, the Orchestra and Glee Club of Hahnemann traveled to Coatesville, Pa., in fulfillment of an engagement for which they had been working several weeks.

We left on the mid-afternoon train, twenty strong, several others came on later. From the moment the wheels commenced their revolutions, the Glee Club sang with more or less accuracy, until the destination was reached. Having tried out all of the regular program that we could sing under such circumstances, and in such environment as a smoking car affords, we dabbled in improvisation and impromptu harmonizing. It usu-

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ally happens that such songs are put through better than those much studied, and this was no exception.

Arrived in Coatesville, we walked at once to the church and had a rehearsal. Rehearsals—well, they never do go as well as the actual concert.

We would like to say here how extremely we appreciated the hospitality that was extended to us through the efforts of Taggart, '19, and his parents. He had arranged to have the ladies of the town take care of two men each, that they might have dinner and a place to dress. Taggart reports difficulty in making distributions, because the single women wanted good-looking men, and the men also have preferences as to whom they shall be paired off with.

A little flurry of rain did its best to dampen our spirits, but it couldn't be done. Everyone was in good feather, although we did hear two or three say that their voices had "never been so bad." One man had a hunch that it would be all a great success—and he was right.

The concert itself was a success indeed. It was estimated that there were about five hundred people gathered in the Sunday school room of the church. The proceeds, amounting to approximately \$250, are to go toward swelling the building fund for the new church auditorium.

Mr. Bolger, late of the Penn Mask and Wig, who traveled with us to sing "The Longshoreman," together with Mr. Joel Melick, '19, with his readings, quite took the audience by storm.

From first to last it was good. The people were there for a good time, in the spirit of "ready-to-be-easily-pleased."

Six or eight men remained over night to attend a private dance given in the "Tea House."

We might still more highly praise the concert and its moving spirit and guide—Taggart. But let the chief recommendation be the fact that Coatesville wants us back again next year.

Seniors.—Several trips were arranged for the Senior Class by the Professor of Hygiene, Dr. Fred. W. Smith, in relation to the practical side of this very interesting subject.

The first trip was to the factories of Warren Webster & Co., in Camden. There the class met Mr. Bramer, of that concern, who gave them a very interesting non-technical talk on air conditioning of buildings, large and small. He took up in detail, and demonstrated by the actual apparatus, to each one's complete satisfaction, how air is washed, heated or cooled, and how moisture may be added to or taken from the air. After answering many questions, Mr. Bramer presented each member with a descriptive catalogue of the apparatus used. He also invited the members of the class to attend a lecture on the subject at the Engineers' Club in Philadelphia on the following night. With many thanks to Mr. Bramer for a pleasant afternoon, the class departed.

The second trip took us to the abattoir of Louis Burk, where we were met by a Federal Meat Inspector, who took us from cellar to garret, in fact from the "killing" to the "sausage." We were shown how the meat was examined, why it was condemned, and how it was destroyed, if condemned.

The third trip was a veritable "joy-ride" to Torresdale, where the class inspected the huge filtration plant of the city's water supply. In addition they saw the experimental sewage disposal plant at work. Much of the success and pleasure of this trip is due to the generosity of Drs.

Fred. W. Smith, Wm. B. Va Lennep, and H. S. Weaver, who so kindly loaned their cars for the use of the class.

Much interest has been taken by the class at large, and by the medical section in particular, in a little lad, a patient of one of the students in the medical wards. Harry is a bright lad of eleven years, but on account of being an invalid so many years, he had never seen the animals of a circus parade. At the time of the recent street parade of Barnum & Bailey's Greatest Show on Earth, Harry was taken in the arms of one of his friends, Dr. Duncan, and carried to the second floor of the college, where he could have a grandstand seat and enjoy the wonders of the parade to his heart's content. He is still talking of the thrilling sights of that morning.

New Professor of Orthodontia.—Drs. Shallcross and Seeley, of our Nose and Throat Department, have been instrumental in procuring the services of a man, than whom there is no better in his line to-day, according to eminent authorities and men who know. This man is Dr. J. G. Lane, late Associate Professor of Orthodontia at the University of Pennsylvania. A professor at the University was overheard to say: "Those men at Hahnemann know a good thing when they see it." Well, the best is none too good, and so we are glad to welcome Dr. Lane into our midst as Professor of Orthodontia.

He has given the Senior Class in the brief time allotted to him a very interesting course of lectures on his subject. Next year a course will be arranged of larger scope, consisting of six lectures and six clinics, in which Dr. Lane will have an opportunity to demonstrate his lectures. This only goes to show that Hahnemann is keeping up to date in every line.

The last of the Senior conferences was held at the home of Professor Clarence L. Bartlett, 1433 Spruce street, Thursday evening, May 4th. Porter was the essayist, and presented a few cases that proved to be diagnostic riddles. A free discussion followed after each case was presented, and the novelty of the paper was such that to the members of the class, the new departure was voted most interesting and an improvement over the usual orthodox method of academic treatment. Wittman also presented a case of neurasthenia which was very interesting.

Strohm, the president of the class, with a few well chosen words, presented Professor Bartlett, on behalf of the class, a sterling silver pencil, as a token of regard and esteem. Dr. Bartlett, with his usual jovial manner, graciously accepted the gift, as a "binding link and a memory of the many pleasant evenings spent with the Class of 1916."

Juniors.—Dr. Dudley J. Morton, the head of our Orthopaedic Department, has left us for a few months. He sailed Saturday, April 29th, from New York bound for Europe, where he will enter service as surgeon attached to the American Ambulance Hospital located in France. We wish him a safe and successful stay in the War Zone. Dr. Morton, during the last year, has been able to procure a new orthopaedic dispensary, beautifully fitted out in brightly lighted rooms fronting on Fifteenth street, and located in the basement of the hospital. A lady masseuse has been engaged to assist our masseur, Mr. McKie. Since the new dispensary has been opened our orthopaedic patients have been steadily increasing in number, and we will soon have as large a department as any hospital in the city.

Freshmen.—Some game, this: read about it.

Spring had come and with it the baseball fever. The latter invaded the two baby classes of the college to such an extent that they, namely, the Pre-Meds and Fresh, dug up their old baseball uniforms (in fact any old clothes they could find) and laden with accessories "hit the trail" for the ball grounds at Fairmount Park. It was a wonderful day, it was a wonderful game, and it was a wonderful umpire. I had forgotten about Dr. Gordon until then. It was he that started the rumpus, but he saw it through, and proved himself an umpire of the big-league quality.

As to the game, "Eddy" Marbecker got excited and ate the score card, so I will have to rely on my memory. The first two innings were—well, the Pre-Meds were so far outclassed it was uninteresting, because Twinning—the really big-leaguer—was on the mound for the Fresh. After the second inning the god of the fans left, and—pause, gentle reader—the final score was 27-6 in favor of the Pre-Meds. Burkitt and Zapf proved a worthy battery for the Pre-Meds, while Prugh and Holland pitched to Lyon with less success.

The star fielding of Hobart, before he fell over that blade of grass, the many home runs of Gilliam, and Pop Gordon's umpiring made us all think we were in Shibe Park.

The game finally closed, and a tired but happy crowd went home with lungs full of fresh air and light hearts. The next morning found us "sorer but wiser men."

Pre-Medicals.—It takes the "younger set" of old Hahnemann to keep up the "pep" around the place. This class will hold their own any day, either in school at work, or outside at play.

After receiving many threats as to what would happen, and a final challenge to a game of baseball from the Freshmen, the Pre-Meds accepted. In a pitched battle which followed, the Freshies lost by a score of 27-7. The class of '20 being only 20 runs to the good.

The class assisted Dr. Borneman on a recent botany trip in collecting specimens for the Baltimore exhibit. Besides bringing from the woods a beautiful collection they brought home some real live game, in the shape of an eight-pound woodchuck, which they managed to run into a bag, found close by the place where the animal was discovered.

The keeper of the guinea pigs, rabbits, etc., at the Pathological Department, refused to accept Mr. Woodchuck, and he was taken home by one of the class to determine how much wood a woodchuck would chuck, if a woodchuck would chuck wood.

Visitors at the College.—Drs. Terry A. Walter, Langhorne, Pa.; W. W. Nuss, Towanda, Pa.; Chas. A. Wright, Delaware, Wis.; S. B. Van Dalsem, San Jose, Cal.; R. E. Heimbach, Quakertown, Pa.; J. Edward Rehrig, Catasauqua, Pa.; H. M. Cooper, Rutherford, N. J.; J. Herbert Moore, Boston, Mass.; A. D. Strickler, Pittsburgh, Pa.; H. W. Fischer, Wilkes-Barre, Pa.; H. Budmeister, Boston, Mass.; H. M. Read, Pittsburgh, Pa.

Mr. Henry James MacFarland, treasurer of Hahnemann Medical College of Chicago, and member of the Board of Trustees, visited the college recently and reports the financial condition of his college very prosperous. Land has been donated for the site of the new hospital, and two public-spirited benefactors have contributed \$300,000 toward its erection. We are happy to hear of the prosperity of our sister institution.

THE HAHNEMANNIAN MONTHLY NEWS AND ADVERTISER

A Medical Newspaper

JUNE, 1916

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A Textbook of Fractures and Dislocations, with Special Reference to Their Pathology, Diagnosis and Treatment. By Kellogg Speed, S.B., M.D., F.A.C.S., Associate in Surgery, Northwestern University Medical School; Associate Surgeon, Mercy Hospital; Attending Surgeon, Cook County and Provident Hospitals, Chicago, Ill. Octavo, 888 pages, with 656 engravings. Cloth, \$6.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

Every form of fracture and dislocation is dealt with most fully in this work, which, because of its completeness and its accurate illustrations, is destined to fill a place of accepted authority in the literature. Unique and important features of the work are the author's method in discussing fractures and dislocations, which are considered together under their several anatomical divisions, and the special reference and emphasis which are given by the author to pathology, diagnosis and treatment.

A clear conception of osseous injuries and their repair is essential to an understanding of fractures. For this reason the author has selected examples of different types of usual fracture pathology and endeavored to bring them before the reader's eye by means of line drawings, which

illustrate the essential points. Every illustration of this character is a careful reproduction of tracing made from a Roentgenogram of an actual case, for the most part taken from the author's own practice. Much of the clinical and all of the statistical material of this book was obtained at the Cook County Hospital, Chicago.

Physicians called upon to treat cases of fracture or dislocation will find Dr. Speed's book an invaluable aid and guide, for the author's exceptional experience and acknowledged authority give proof of the wisdom and advisability of the measures he advocates.

Gynecology. By William P. Graves, M.D., F.A.C.S., Professor of Gynecology at Harvard Medical School. Octavo volume of 770 pages with 424 original illustrations, 66 of them in colors. Philadelphia and London: W. B. Saunders Company, 1916. Cloth \$7.00 net; Half Morocco \$8.50 net.

This work is designed both as a textbook and general reference book to gynecology and is divided into three parts. Part one deals with the physiology of the pelvic organs and their relation to the general organism. Part two is designed primarily for the undergraduate student. It includes a description of the phases which are essentially gynecologic, together with a description of the underlying pathological processes. Part three is devoted exclusively to the technique of operative procedures. The author has not attempted to describe all possible operations but only those which in his personal experience have seemed best suited. In compiling the work the literature both in English and the foreign languages has been freely consulted and the services of the artists and photographer have been freely employed in elucidating the steps in operative and diagnostic technique. The volume is one which reflects credit upon both its author and upon the publishers.

The Art of Anaesthesia. By Paluel J. Flagg, M.D., Lecturer in Anaesthesia, Fordham University School of Medicine, etc, etc. One hundred and thirty-six illustrations. J. B. Lippincott, Philadelphia and London

This work is intended as a ground work upon which the student, interne and general practitioner may acquire a comprehensive knowledge of the art of anaesthesia. The author first takes up general anaesthesia by means of ethyl-chloride, chloroform, nitrous oxide, ether and various combinations of these anaesthetics. The various methods employed are oral insufflation, intratracheal insufflation, rectal and intravenous methods are fully discussed. Medication preliminary to anaesthesia is taken up and also discussion of spinal anaesthesia. We are impressed with the practical character of Dr. Flagg's work and would highly recommend it to anyone desiring accurate and comprehensive information on this important subject.

Whooping-Cough a Serious Disease.—In an address before the New York Academy of Medicine, and reported in the Archives of Pediatrics, issue of August, 1914, John Lovett Morse, A.M., M.D., Professor of Pediatrics in the Harvard Medical School, made this significant statement: "The relative mortality from whooping-cough, scarlet fever and diphtheria is essentially the same throughout the country, whooping-cough being almost everywhere more fatal than scarlet fever and less fatal than diphtheria. . . . Instead of being a trifling affair, as it is

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usually considered to be by the laity, whooping-cough is a most serious and fatal disease. 'Any disease which kills 10,000 children per annum is,' as Rucker says, 'a serious one. If bubonic plague were to kill that many children in the United States in one year, the whole world would quarantine against our country. A child dead of whooping-cough is just as dead as a child dead of plague.'"

In the same issue of the journal above referred to, the editor, an undoubted authority, says that "whooping-cough causes more deaths in children under one year than any other infectious disease."

In view of these startling facts, is it not just possible that the profession at large, like the average layman, has been too prone to look upon whooping-cough as an inevitable concomitant of childhood, and to underestimate its seriousness?

The Bordet-Gengou bacillus is recognized as the specific cause of whooping-cough, and the most rational method of treating the disease is by means of vaccine prepared from cultures of this bacillus. It is pertinent in this connection to refer to two such vaccines which are manufactured and marketed by Parke, Davis & Co. One bears the name of Pertussis Vaccine; the other is designated as Pertussis Vaccine, Combined. The first-mentioned vaccine is indicated in cases diagnosed as pertussis, in suspected cases when a definite diagnosis is lacking, and as a prophylactic. The second is indicated in all cases of pertussis, but especially those which have persisted for some time, such infections being usually of the mixed type. The vaccines are administered hypodermically and are supplied in bulbs, in rubber-capped vials, and in glass syringes. The various packages are fully described in an announcement which appears elsewhere in this journal under the caption, "The Vaccine Treatment of Whooping-Cough." The advantages of the vaccine treatment are succinctly stated in the advertisement, which our readers are advised to consult.

Meeting of the Michigan State Society.—The Homœopathic Medical Society of the State of Michigan held its forty-fifth annual meeting at Ann Arbor, Michigan, May 15, 16, 17, 1916. In proportion to its population, Michigan is one of the strongest homœopathic States in America, and under the leadership of that staunch advocate of homœopathy, Dr. Hinsdale, the Society has grown to be a very active and enthusiastic one.

On Monday, May 15th, Dr. G. Harlan Wells, of Philadelphia, gave two lectures and a clinic devoted to a consideration of "Chronic Heart Failure—Its Diagnosis and Treatment." On Monday evening the Society was entertained by Dr. Hinsdale, who furnished a bountiful supply of food, cigars and good advice. On Tuesday night a banquet was held in one of the buildings of the University of Michigan at which more than two hundred members were present. The business and scientific sessions of the Society were ably conducted by the President, Dr. W. G. Paterson, of Detroit. The following interesting papers were presented:

"Surgery of the Gall Bladder, Dr. G. P. Myers, Detroit.

"Some Gynecological Problems," Dr. Theron G. Yeomans.

"The Prophylactic Treatment of Malignant Tumors with Radium," Dr. J. M. Lee, Rochester, N. Y.

"Homœopathy," Dr. H. G. Glover, Jackson.

"The Significance and Treatment of Irregularities of the Pulse," Dr. G. Harlan Wells, Philadelphia.

"Homœopathy: Its Relation to Modern Science and the Laboratory as

Applicants for membership should sign the following blank and forward with check for Five Dollars to Dr. W. N. Hammond, 313 Weightman Building, Philadelphia, Pa.

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in the county of *State of Pennsylvania, hereby makes application for*
membership in the Homoeopathic Medical Society of the State of Pennsylvania, and agrees to abide by its
Constitution and By-Laws if elected a member.

....., M. D.

....., M. D.

....., M. D.

Members.

Vouchers

the Connecting Link Between the Two," Dr. W. C. R. Vogt, Ann Arbor, Mich.

"The Family Doctor's Last Stand," Dr. W. B. Armsbury, Marine City.

"The Nasal Septum and Ethmoid Obstruction in Their Relation to Certain General Disturbances," Dr. Dean W. Myers, Ann Arbor.

"The Pharyngeal Tonsils," Dr. C. E. Beeman, Grand Rapids.

COLLEGE NOTES

Hahnemann Medical College and Hospital of Philadelphia

Edited by C. SEAVER SMITH, '16

The Sixty-Eighth Annual Commencement of the Hahnemann Medical College and Hospital, Philadelphia, was held on Thursday, June 1st, at 12 o'clock at the Garrick Theatre, Philadelphia. The exercises were opened with prayer by Rev. Floyd W. Tomkins, of Philadelphia. The address to the graduating class was delivered by the Hon. John F. Lewis, of Philadelphia, who took as the subject for his talk, "The Physician and The Law." Mr. Lewis, in very concise and clear language, placed before the graduates valuable information in regard to the doctor as a witness in court; his responsibility to his patients and to the public; the necessity of having accurate and complete system of books showing the services rendered to patients and the charges for such services.

Mr. Charles D. Barney, President of the Board of Trustees, conferred the degrees of the college, namely, Doctor of Medicine and Doctor of Homœopathic Medicine, upon the following graduates:

Ralph H. Armstrong, Athens, Pa.
 James V. DeLeonardis, Newark, N. J.
 Thomas L. Doyle, Tremont, Pa.
 Donald Renwick Ferguson, A.B., Philadelphia, Pa.
 Charles L. Fulmer, Philadelphia, Pa.
 Charles Walker Lane, A.B., Philadelphia, Pa.
 Alvin Ray Megahan, Jeannette, Pa.
 Harry Phillip Metzgar, Philadelphia, Pa.
 Ruben A. Peterson, Swissvale, Pa.
 Thomas Wolden Phillips, Camden, N. J.
 Hugh James Porter, Appleby, Canada.
 Thomas H. Powick, Philadelphia, Pa.
 L. Brooke Roberts, Quakertown, Pa.
 Henry F. Roepke, Philadelphia, Pa.
 Charles Andrew Rowland, Chester, Pa.
 Charles Seaver Smith, B.S., Chelton, Conn.
 Thomas M. Snyder, Philadelphia, Pa.
 Work A. Streeter, Waco, Texas.
 Lloyd E. Strohm, Ph.D., Lancaster, Pa.
 Paul C. Wittman, B.S., Philadelphia, Pa.

Hospital Appointees.

Hahnemann Hospital, Philadelphia, Pa.—Thomas Lawrence Doyle, Tremont, Pa.; Donald Renwick Ferguson, Philadelphia, Pa.; Charles L. Fulmer, Philadelphia, Pa.; Charles Walker Lane, Philadelphia, Pa.; Ru-

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Pittsburgh Homœopathic Hospital, Pittsburgh, Pa.—Alvin Ray Megahan, Jeannette, Pa.

Wilmington Homœopathic Hospital, Wilmington, Del.—Harry Phillip Metzgar, Philadelphia, Pa.

Children's Homœopathic Hospital, Philadelphia, Pa.—Henry F. Roepke, Philadelphia, Pa.

Scranton Homœopathic Hospital, Scranton, Pa.—Ralph H. Armstrong, Athens, Pa., and L. Brooke Roberts, Quakertown, Pa.

Crozer Homœopathic Hospital, Chester, Pa.—Charles Andrew Rowland, Chester, Pa.

Buffalo Homœopathic Hospital, Buffalo, N. Y.—Thomas H. Powick, Philadelphia, Pa.

Prizes.

The faculty prizes to the Senior Class. To the three members having the highest standing were awarded as follows:

First Prize—Thomas Doyle, Tremont, Pa.

Second Prize—Ruben A. Peterson, Swissvale, Pa.

Third Prize—Donald R. Ferguson, Philadelphia, Pa.

Scholarships.

The President's Scholarship.—A scholarship for the fourth year, offered by the President of the Board of Trustees to the members of the third year class attaining the highest general average. Awarded to James Stewart Seitz, B.S. Honorable mention, John Herbert Reading, Jr., and Edgar Burnett Junkermann.

The Walter E. Hering Scholarship.—A scholarship for the third year, offered by Mr. Walter E. Hering to the members of the second year class attaining the highest general average. Awarded to Norman Roberts, B.A. Honorable mention, C. Harold Kisler and H. Doyle Webb.

The Pittsburgh Alumni Scholarship.—A scholarship for the second year, offered by the Pittsburgh Alumni to the members of the first year class attaining the highest general average. Awarded to Joel M. Melick. Honorable mention, Walter W. Kisler and Robert S. Kropp.

Meeting of the Alumni Association.—The Alumni Association held its meeting in the College Building at 3 P. M., June 1st. A large gathering of the alumni were present for the transaction of the business and to receive the report of the Dean. Dr. Pearson, in his report, reviewed the work of the year and called attention to the very satisfactory increase in the number of students in the Freshman and Pre-Medical years. A copy of the report in full will be found in the present issue of the Hahnemannian Monthly.

Sleeplessness.—There can be no denying the fact that for all round use, the bromides still hold first place in the rational treatment of insomnia. Of course, especial care should be used in selecting the particular bromides to be employed, as the results accomplished obviously depend to a large extent on their purity and quality. This is well shown by the notable therapeutic utility of Peacock's Bromides, a preparation of bromide

salts that for many years has been the first remedy turned to by countless discriminating physicians whenever a sedative or hypnotic has been needed. Particularly in overcoming the sleeplessness due to nervous excitation, neurasthenia, alcoholism, prolonged worry, hysteria, and so on, have Peacock's Bromides been found of never-failing efficiency, with gratifying freedom from gastric irritation, and the all too evident drawbacks that so often characterize other hypnotic agents.

A Fine Opening for a Young Physician.—By the death of Dr. Frederick H. Sage, of Middletown, Conn., a successful practitioner of thirty-two years, a large homœopathic clientele is left without a physician. Middletown has a population of over twenty thousand and has always liberally sustained homœopathy. For particulars, write to Mrs. F. H. Sage, 64 Main street, Middletown, Conn.

For Sale or Rent.—The office of the late Dr. S. B. Weaver, with fixtures, surgical appliances, good medical library, and large well stocked medicine case of homœopathic remedies. Apply at once to S. Malcolm Weaver, or Mrs. S. B. Weaver, Littlestown, Pa. On line of P. R. R.

Personals.—Dr. Desiderio Roman announces the removal of his office to 1904 South Rittenhouse Square.

Dr. G. W. Harpel, who has been practicing medicine in Mt. Carmel, Pa., over thirty-four years, will retire, and his address, after May 1, 1916, will be 1264 Culver Road, Rochester, New York.

Dr. A. P. Gardner announces the removal of his offices on April first, to Rooms 400-401 Dime Bank Building, Scranton, Pa. Office hours: 2 to 3.30 P. M.; 7 to 8 P. M.; Sundays by appointment. Bell telephone 696.

PENNSYLVANIA STATE NOTES

Edited by Ralph Bernstein, M.D.

The Annual Meeting of the Contributors to Hahnemann Medical College was held on Monday evening, May 1, 1916, at Hahnemann College. The meeting was called to order at 8.30 o'clock. After the reading of the minutes of the previous meeting, came the roll, then the report of the Dean, Dr. Wm. A. Pearson, that of the treasurer and then the various committees. Unfinished business was then taken up after which new business was transacted, when Hon. Ernest L. Tustin proposed some changes in the charter and by-laws. The governing faculty recommended the following changes, which were made:

- Dr. Ralph Bernstein, Professor of Dermatology.
 - Dr. W. Lawrence Hicks, Associate Professor of Nervous Diseases.
 - Dr. Wm. D. Culin, Associate Professor of Gynecology.
 - Dr. H. M. Eberhard, Clinical Professor of Gastro-Enterology.
 - Dr. Jos. McEldowney, Associate Professor of Physical Diagnosis.
 - Dr. J. G. Lane, Clinical Professor of Orthodontia.
 - Dr. D. W. Horn, Professor of Inorganic Chemistry.
 - Dr. Wm. Steele, Associate Professor of Medicine.
 - Dr. R. S. E. Hunter, Instructor in Genito-Urinary Diseases.
 - Dr. H. M. Shannon, Instructor in Genito-Urinary Diseases.
 - Dr. C. W. Truxal, Instructor in Medicine.
 - Dr. Roman C. Hoffman, Instructor in Physical Diagnosis.
 - Dr. Wm. J. Ryan, Demonstrator of Ophthalmology.
- There was a large attendance of those interested in the college.

The Homœopathic Medical Society of the County of Philadelphia held its regular monthly meeting at Hahnemann College, on Thursday evening, May 11, 1916, at 8.30 o'clock. The scientific program consisted of the following:

- "A Certain Pain in the Cardiac Region"O. S. Haines, M.D.
 "Statistical Therapy—A Review of General Therapy as Compiled by the Hering Laboratory"Wm. F. Baker, M.D.
 "A Subjective Proving of Skatol and Remarks on Provings as Formulated in the Organon"Wm. B. Griggs, M.D.
 "Points of View in Therapeutics"W. D. Bayley, M.D.

The nomination of officers took place at this meeting, after which all members enjoyed the social hour which followed.

J. M. Kenworthy, M.D., Secretary.

The Society of Surgery, Gynecology and Obstetrics held its regular monthly meeting at Hahnemann College, on Wednesday evening, May 24, 1916, at 8.30 o'clock. The election of officers was a special feature of this meeting, after which the scientific program was presented, which was as follows:

- "Procidencia—Its Etiology and Curative Treatment" .Wm. D. Culin, M.D.
 "An Obstetrical Paper"Warren C. Mercer, M.D.

The meeting was an enjoyable one and was largely attended.

J. M. Kenworthy, M. D., Secretary.

The Clinico-Pathologic Society of Philadelphia held its regular monthly meeting at Hahnemann College, on Saturday evening, April 15, 1916, at 8.30 o'clock. Following is the scientific program which was presented:

"Encysted Empyemas" (illustrated by Roentgenograms)

W. C. Barker, M.D.

"The Result of Nephrectomy (with presentation of case)

L. T. Ashcraft, M.D.

"The Present Status of Gastro-Enterostomy"H. M. Eberhard, M.D.

Several interesting clinical cases were discussed at this meeting, after which adjournment took place.

B. K. Fletcher, M.D., Secretary.

The Germantown Homœopathic Medical Society of Philadelphia held its regular monthly meeting at the Hotel Majestic, Broad and Girard avenue, on Monday, April 17, 1916, at 9 o'clock in the evening. Dr. O. S. Haines gave a very interesting talk, the title of which was "Hahnemann, the Pioneer." This was followed by a hearty discussion. The Board of Censors reported favorably the name of Dr. Walter Norley, 1912. Supper was served at 11 o'clock, and an enjoyable time was had by all present.

C. B. Hollis, M.D., Secretary.

The Woman's Homœopathic Medical Club of Philadelphia held its regular monthly meeting on Thursday, May 4, 1916, at the Woman's Southern Homœopathic Hospital. The meeting was called to order at 8.30 o'clock. The scientific program consisted of a lecture on "Syphilis of the Skin and Oral Cavity," with lantern demonstrations, the same being given by Dr. Ralph Bernstein. There was a full attendance of members and the meeting was an enjoyable one.

V. Reel, M.D., Secretary.

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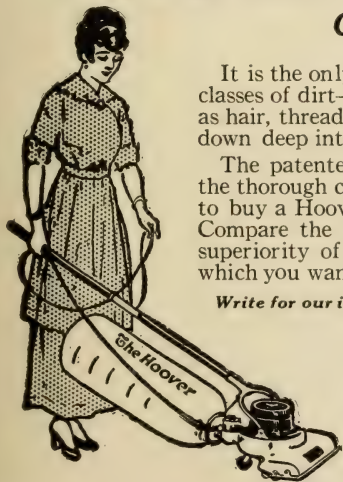
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NEW BERLIN, OHIO.

The Homœopathic Medical Society of the Twenty-third Ward of Philadelphia held its regular monthly meeting at the office of Dr. A. L. Heritage, Jenkintown, Pa., on Wednesday, May 12, 1916. Many important topics were discussed at this meeting, after which a well prepared paper on "Nux Vomica" was read. The meeting, which was an interesting one, was well attended.

J. D. Boileau, M.D., Secretary.

The Oxford Medical Club of Philadelphia, Pa., held its May meeting at the office of Dr. Fred. P. Wilcox. Dr. Wilcox held the attention of all present while he read an interesting paper on "Auto-Intoxication," and which was thoroughly enjoyed. After a social hour the meeting adjourned.

E. M. Gramm, M.D., Secretary.

The Delaware County Homœopathic Medical Society held its annual meeting at the Riverside Hotel, Essington, on Thursday, May 11, 1916, at 1.30 P. M. The new pavilion which has just been completed and which extends over the river was used for the meeting place. The election of officers took place at this meeting, after which the following keen and up-to-date program was presented:

"Eye Dont's"C. H. Hubbard, M.D..
 "Sore Throats"J. P. Craig, M.D..
 "Ear Aches"G. C. Webster, M.D.

Dr. C. H. Hubbard opened the discussion, which was entered into by a large number of physicians. Many important subjects were acted upon at this meeting, after which a planked shad dinner was served. There were many local attractions which helped to make the meeting one of the most pleasant ones ever held, and all present had a thoroughly enjoyable time.

G. C. Webster, M.D., Secretary.

NEW JERSEY NOTES.

The Atlantic City Homœopathic Medical Club held its eighth annual open meeting at the Atlantic City Yacht Club, on Friday evening, April 14, 1916, at 8.30 o'clock. The scientific program was as follows:

"The New Therapeutics and the Old Mechanism" George F. Laidlaw, M.D..
 "Conservatism in Ophthalmology"William Speakman, M.D.

The meeting was an enjoyable one and was well attended.

Wm. Hughes, M.D., Secretary.

The West Jersey Homœopathic Medical Society held its annual meeting at the West Jersey Homœopathic Hospital, on Wednesday, May 17, 1916, at 11 A. M. The committee on the Fiftieth Anniversary of Dr. J. G. Streets had carefully planned a reception which was tendered him on his golden jubilee. The election of officers to serve for the ensuing year took place after which the scientific program was presented, and was as follows:

"Autolysin"C. F. Hadley, M.D..
 "Three Practical Cases"I. N. Griscom, M.D.

An elaborate dinner was served at 1 P. M., and was an enjoyable feature.

F. F. Moore, M.D., Secretary.

THE HAHNEMANNIAN MONTHLY NEWS AND ADVERTISER

A Medical Newspaper

JULY, 1916

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Blood Pressure: Its Clinical Applications. Second Edition, Revised and Enlarged. By George W. Norris, A.B., M.D., Assistant Professor of Medicine in the University of Pennsylvania; Visiting Physician to the Pennsylvania Hospital; Assistant Visiting Physician to the University Hospital; Fellow of the College of Physicians of Philadelphia. Octavo, 424 pages, with 102 engravings and 1 colored plate. Cloth, \$3.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

The importance of blood-pressure in diagnosis, prognosis and treatment is becoming more widely recognized every day, and with this recognition has come the creation of a literature devoted to this special field. Dr. Norris has given an adequate description of this important field, clearly elucidating the principles involved and carefully pointing out their practical applications. He has presented his subject in condensed form, and as definitely as the present state of our knowledge permits.

The first edition of this work was exhausted in considerably less than two years after publication. In the process of revision for the second edition an increase in size has been necessary in order to include a survey of the constantly growing literature on blood pressure. Both the experimental and clinical data which have been available are included, for it is the combination of these two that the physician must rely upon

when handling his cases. The author's method of discussing each part of the subject is such that his book is a well balanced presentation of the latest scientific information regarding blood-pressure and its clinical applications. It is probably the most complete and authoritative work in English on this extremely important topic. The illustrations are well chosen and a help to the easy understanding of the text.

- * **A Guide to Gynecology in General Practice.** By Comyns Berkeley, M.A., M.D., M.C. (Cantab.) F.R.C.P. (London) Obstetric and Gynecological Surgeon to the Middlesex Hospital and Surgeon in Charge of its Military Hospital at Clacton-on-Sea, etc., etc, and Victor Bonney, M.S., M.D., B.Sc., (London), F.R.C.P. (Eng.), M.R.C.P. (London) London: Henry Frowde and Hodder & Stoughton, Oxford University Press, Warwick Square, E.C., and 35 West 32d Street, New York City.

This book is written for the medical practitioner to assist him in supplementing a theoretical knowledge of the subject with a practical understanding of its clinical application. The subject matter is arranged in five parts: Part one is occupied with methods of examination; parts two and three are concerned with a consideration of the significance of symptoms and the interpretation of physical signs. Part four describes the various methods of treatment from a non-surgical standpoint. Part five deals with the medico legal aspect of gynecology. This work will appeal to the general medical man because of the fact that it approaches the subject exclusively from a medical standpoint. Operations where indicated are merely referred to by name. Non-operative measures are described in detail.

- Pocket Manual of Homœopathic Materia Medica.** By William Boericke, M.D. Sixth edition, revised and enlarged, printed on elegant India Bible paper and bound in handsome black flexible Morocco leather. A wonderfully compact volume containing 1293 pages, only 1½ inches in thickness and weighing ten and a half ounces. Price, postpaid, \$3.50. Boericke & Runyon publishers, 14 West 38th street and 116 S. 11th street, Philadelphia.

The popularity of this little volume which is really a pocket edition of the materia medica among homœopathic physicians is attested by the fact that it is now in its sixth edition. The work comprises the characteristic and guiding symptoms of all our remedies together with a compact therapeutic index and a comprehensive repertory. The sixth edition contains all new remedies and verifications mentioned in literature up to date. It is practical and contains a summary of the experiences of the homœopathic school of all the remedies that have been proved or partially proved. The book is printed on India Bible paper and is bound in black flexible morocco leather. It is a work that reflects great credit upon its authors and upon the publishers.

- Painless Childbirth: Eutocia and Nitrous Oxid-Oxygen Analgesia.** By Carl Henry Davis, A.B., M.D., Associate in Obstetrics and Gynecology, Rush Medical College, in affiliation with the University of Chicago; Assistant Attending Obsetetrician and Gynecologist to the Presbyterian Hospital, Chicago. Chicago, Forbes & Company, 1916.

The author of this work, Dr. Carl Henry Davis, makes a strong plea

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for painless childbirth and strongly recommends nitrous oxid-oxygen analgesia as the best method of relieving pains of labor. He does not believe that Twilight Sleep can be considered free from danger. Dr. Davis' book describes in detail the method he employs and the results obtained.

Rules for Recovery from Pulmonary Tuberculosis. A Layman's Handbook on Treatment. By Lawrason Brown, M.D., of Saranac Lake, N. Y. Second edition, revised and enlarged. 12mo, 184 pages. Cloth, \$1.25, net. Lea & Febiger, publishers, Philadelphia and New York, 1916.

The first edition of this valuable handbook for laymen met with a prompt and wide acceptance and was soon exhausted. A constant and growing demand has required a second edition, in which the author has revised and enlarged his book and the publishers have issued it in a convenient and attractive volume.

Having for years been associated with the late Dr. Trudeau in his tuberculosis work at Saranac Lake, New York, Dr. Brown knows the problems which confront the consumptive who would live a life that shall make him an acceptable member of society, rather than a person to be shunned. If a permanent cure is to be effected it is necessary that the patient shall learn how to co-operate intelligently with those who prescribe and care for him. This handbook gives in brief and simple form all that is necessary for the patient to know in order to render such co-operation.

Dr. Brown has no fads to advocate nor any pet theories to exploit. He has written in simple language, that is clearly intelligible to the average layman, just the things which his long experience has proved to be the best for the welfare of the patient and most necessary for him to know if he would expedite his own permanent recovery and at the same time safeguard those about him.

This book is an ideal one to put into the hands of consumptives, and of those who have to care for them.

Homœopathic Medical Society of the State of Pennsylvania.—Officers and committee chairmen for the September meeting).

President—DR. J. M. HEIMBACH, Kane.

First Vice-President—DR. W. RAYMER, Beaver Falls, Pa.

Second Vice-President—DR. WM. M. HILLEGAS, Philadelphia.

Secretary—DR. I. D. METZGAR, Pittsburgh, Pa.

Treasurer—DR. ELLA D. GOFF, Pittsburgh, Pa.

Necrologist—DR. W. F. BAKER, Philadelphia.

Censors—J. W. Stitzell, Hollidaysburg, 3 years; Malachi Sloan, 2 years; E. A. Krusen, Norristown (1 year).

Trustees: Three years:—Dr. W. B. VanLennep, Philadelphia; Dr. B. F. Books, Altoona, Pa.; Dr. Wm. M. Hunsicker, Philadelphia, Secretary.; *Two years*:—Dr. L. T. Ashcraft, Philadelphia; Dr. Ralph Bernstein, Philadelphia; Dr. W. A. Stewart, Pittsburgh.; *One year*:—Dr. D. P. Maddux, Chester; H. P. Bryson, Pittsburgh, Pa.; Dr. J. R. Swartz, Harrisburgh.

Chairmen of Committees:—

Registration and Statistics—I. D. Metzgar, Pittsburgh.

Publicity—Dr. Ralph Bernstein, 37 S. 19th St., Phila.

Membership—Dr. W. Nelson Hammond, Weightman Bldg., Phila.

Applicants for membership should sign the following blank and forward with check for Five Dollars to Dr. W. N. Hammond, 313 Weightman Building, Philadelphia, Pa.

THE HOMŒOPATHIC MEDICAL SOCIETY

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Five dollars a year.

The undersigned, a graduate of _____, and practicing medicine at _____, State of Pennsylvania, hereby makes application for membership in the Homoeopathic Medical Society of the State of Pennsylvania, and agrees to abide by its Constitution and By-Laws if elected a member.

, M. D.

, M. D.

, M. D.

Members.

Vouchers

Entertainment—Dr. D. C. Kline, 201 S. 5th St., Reading.

Exhibits—Dr. C. R. Haman, 444 N. 9th St., Reading, Pa.

Legislation—Dr. H. C. Chisholm, Huntingdon, Pa.

Chairmen of Bureaux:—

Surgery, Gynecology and Obstetrics—Dr. J. I. Peck, Scranton, Pa.

Pathology and Path. Anatomy—Dr. Geo. A. Hopp, 3000 Oxford St., Philadelphia.

Sanitary Science—Dr. J. W. Stitzell, Hollidaysburg, Pa.

Homoeopathic Inst. and Clinical Med.—Dr. J. C. McCauley, Rochester, Pa.

Ophthalmology, Otology and Laryng.—Dr. Wm. M. Hillegas, 1807 Chestnut St., Philadelphia.

Materia Medica and Provings—Dr. Morris M. Fleagle, Hanover, Pa.

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In the treatment of acute inflammations of mucous membrane, Silvol may be used locally in solution as strong as 50 per cent. with very little pain or irritation. In inflammatory affections of the ear, nose and throat it may be used in 5 to 40 per cent. solution, and for irrigating sinuses a two to five per cent. solution may be employed with benefit. For inflammatory conditions of the eye and conjunctival infection with pneumococci and staphylococci, a 10 to 40 per cent. solution may be applied with benefit three times a day. In acute gonorrhea, as an abortive measure, a 20 per cent. solution should be injected every three hours, while in the routine treatment the injection of a five per cent. solution three times a day is recommended.

Silvol is a Parke, Davis & Co. product. It is supplied in ounce bottles and in bottles of 50 capsules, each capsule containing six grains; also in ointment form (five per cent. Silvol) in collapsible tubes containing approximately $\frac{1}{8}$ ounce and $1\frac{1}{4}$ ounces.

A Valuable New Catalogue.—Parke, Davis & Co. announce the publication of their 1916 price list, which is said to be an improvement in many respects over any previous issue of this valuable catalogue. The nomenclature of the U. S. P., Ninth Revision, has been adopted in the new list, the term "milliliter" ("mil") being substituted for the cumbersome "cubic centimeter." All Harrison-Act items (products that must be ordered on official order forms) are clearly distinguished. We understand that the book will be ready for distribution about August 1. Physicians are advised to write for a copy, addressing their requests to Parke, Davis & Co., Detroit, Mich.

Treatment of Hay Fever with Pollen Vaccines.—The best way to treat disease is to prevent it. Unfortunately, prophylactic therapeutics has its limitations, and while the science of preventive medicine is undoubtedly expanding, these limitations are still rather sharply defined. So far as the preventive treatment of hay fever is concerned, there is reason to believe that some real progress may now be recorded. It is a well-known fact that certain individuals, on account of a natural susceptibility, become sensitized to the pollens of various plants; when they later come in contact with these pollens they experience the distressing symptoms to which the name "Hay Fever" is usually applied. The attempt to desensitize these individuals by administering subcutaneously extracts of the pollens to which they are sensitive has met with much success. Hay fever is prevalent at two seasons of the year, spring and fall. A variety of pollens may produce hay fever, but it is generally accepted that in America "spring hay fever" is due in the majority of cases to pollens from gramineae. Autumnal, or true, hay fever is due principally to the pollens of ragweed and goldenrod.

This is the season of the year when vaccination against autumnal hay fever should be begun, if any degree of immunization is to be expected, beginning a month or six weeks before the expected manifestation of symptoms. The injections at first may be given at five day intervals, the intervals being shortened or lengthened, according to symptoms. Skin tests are considered necessary by some observers, others regulate the dosage by beginning with a small dose and increasing gradually. There seem to be no contraindications to the therapeutic or prophylactic use of the hay fever vaccines. A small percentage of patients may be hypersensitive to the protein extracts, in which case the dose may be accordingly reduced.

Quite a number of our advertisers are demonstrating these vaccines in the advertising section of this issue of *The Hahnemannian Monthly*.

PENNSYLVANIA STATE NOTES

Edited by Ralph Bernstein, M.D.

Hahnemann Medical College, Philadelphia, Pa.—Twenty students of Homœopathy were graduated as physicians by the Hahnemann Medical College. The Commencement exercises were held at the Garrick Theatre at 11 o'clock in the morning on June 1, 1916.

Mr. Charles D. Barney, president of the College, presided and presented the diplomas to the young physicians. A short address was delivered by the dean of the College, Dr. Wm. A. Pearson. Hon. J. Frederick Lewis, president of the Pennsylvania Academy of Fine Arts, delivered the principal address.

Lloyd E. Strohm, of Lancaster, is president of the class. Thomas Lawrence Doyle, of Tremont, Pa., was first honor man; Ruben A. E. Peterson, of Swissvale, Pa., was second honor man, and Donald R. Ferguson, of Philadelphia, was third honor man.

The annual Alumni banquet was served in the Bellevue-Stratford Hotel. At that time a portrait of Dr. Wm. B. Van Lennep, professor of surgery at the Hahnemann Medical College and Hospital, was presented. The portrait, by H. R. Rittenberg, was subscribed for by friends of Doctor Van Lennep. The presentation was made by Dr. H. L. Northrop and was accepted on behalf of the corporation of the College by Mr. John Gribbel, a member of the Board of Trustees.

Another event was the presentation by the faculty of a loving cup to

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Hon. E. L. Tustin, as a token of esteem and appreciation for the services rendered the college and hospital.

The Commencement, Alumni Session and Banquet were all enthusiastic and successful meetings, mainly because so many loyal graduates returned to greet old friends and see the improvements which have been made. Even those who came from a distance were well repaid for the trip.

Dr. Guy E. Manning, 1890, San Francisco, Cal.; Dr. R. J. Wasgatt, 1876, Rockland, Me.; Dr. E. E. Snyder, 1872, Binghamton, N. Y.; Dr. C. E. Hewitt, 1893, Winedux, Canada; Dr. H. C. Aldrich, Minneapolis, Minn., and Dr. E. B. Tinney, 1896, Lincoln, Neb., were among the many who attended the meetings.

The Class of 1893 is raising \$3,000 for a permanent endowment, and the Class of 1896 have pledged to educate one student.

The following officers were elected: President, of the Alumni Association, Dr. R. L. Piper, Tyrone, Pa.; first vice-president, Dr. H. I. Silvers, Atlantic City, N. J.; second vice-president, G. E. Manning, San Francisco, Cal.; third vice-president, Dr. H. C. Aldrich, Minneapolis, Minn.; secretaries, Dr. B. K. Fletcher and Dr. W. C. Hunsicker, Philadelphia, Pa.; treasurer, Dr. Wm. H. Keim, Philadelphia, Pa.

Old Hahnemann is in a healthy and prosperous condition and the Board of Trustees and faculty are determined to maintain the college on the highest plane of medical education. Students not only receive a general medical education second to none, but in addition unexcelled instruction in homœopathy.

The Homœopathic Medical Society of the County of Philadelphia held its regular monthly meeting at Hahnemann College, Thursday evening, June 8, 1916, at 8.30 o'clock. The scientific program consisted of the following:

"Some Phases of Abdominal Diagnosis"J. D. Elliott, M.D.

"Points on the Diagnostics of Head Injuries"H. M. Gay, M.D.

The election of officers to serve for the ensuing year took place at this meeting, after which many important topics were discussed. The meeting, which was well attended, was an interesting one.

J. M. Kenworthy, M.D., Secretary.

The Clinico-Pathologic Society of Philadelphia held its regular monthly meeting at Hahnemann College, Saturday evening, May 20, 1916, at 8.30 o'clock. The scientific program presented was as follows: A symposium on the Diagnosis of the Silent Carcinoma of the Stomach:

"The Medical Diagnosis"Geo. H. Bickley, M.D.

"The Roentgen Diagnosis"J. W. Frank, M.D.

"The Surgical Diagnosis"D. Roman, M.D.

The meeting was an interesting one and enjoyed by all present.

B. K. Fletcher, M.D., Secretary.

The Germantown Homœopathic Medical Society of Philadelphia held its regular monthly meeting at the Hotel Majestic, Broad and Girard avenue, on Monday evening, May 15th, at 9 o'clock. "Neuralgia of the Fifth Nerve" was the title of a paper which was presented by Dr. H. L. Northrop and which proved to be an interesting feature of the occasion. At 11 o'clock supper was served to all present, there being a full attendance of members.

C. B. Hollis, M.D., Secretary.

The Philadelphia Society for Clinical Research held its regular

monthly meeting at the office of Dr. Fred C. Emery, Fox Chase, Pa., on Wednesday, May 24, 1916, at 2 P. M. A paper on "Diagnosis of Pneumonia in Children" was very ably presented and heartily discussed. The meeting was well attended and an enjoyable time was had by those present.

The Tri-County Homœopathic Medical Society held its annual Montgomery County Day at the Plymouth Country Club, near Norristown, Pa., on June 13, 1916. Dinner was served at 1.30 P. M. There were many members present at this outing as well as many visiting physicians who were royally entertained. The Norristown physicians exerted every effort to make the day a pleasant one for all attending the outing, it being the most successful one ever held.

The Women's Homœopathic Medical Association of Pittsburgh, Pa., held its regular monthly meeting at the office of Dr. H. Ellen Walker, 17 Vine street, Sharon, Pa., on Thursday, June 8, 1916, at 12 o'clock noon. The attendance at this meeting was unusually large. Dr. J. M. Heimbach, of Kane, Pa., president of the Homœopathic Medical Society of Pennsylvania, addressed the Society in a very able manner, the same being greatly enjoyed by all present.

Anna Johnston, M.D., Secretary.

Central Pennsylvania Society.—After a pleasant hour in the game room and a lunch served by the York members, the regular meeting of the Central Pennsylvania Homœopathic Medical Society was called to order by the president, Dr. Snyder, on June 8, 1916. Most all of the members responded to roll call and the following visitors were present: Drs. Sylvis and Levis, of Philadelphia; also Messrs. Seitz and Ursprung, students at Hahnemann. Dr. Parker announced that he had selected Drs. Moyer, Snyder and Perkins as his assistants on the Publicity Committee. The secretary read a letter from Dr. Ralph Bernstein accepting his election to honorary membership in the Society, which election took place at the previous meeting. Dr. Wm. Sylvis, of Philadelphia, gave a very interesting and instructive talk on the "Pathologic Breast," which brought forth a hearty discussion. Dr. Sylvis also gave an illustrated lecture on "Hahnemann College of To-day," showing some very interesting pictures of college work and the instructors. Dr. Perkins, of Harrisburg, read a paper on "Emetine in Hemorrhage," which proved to be quite interesting. Dr. Brown, of Lancaster, read a paper on "Marasmus," the same being enjoyed and heartily discussed. The meeting was the largest ever held and an enjoyable time was had by all present.

G. A. Sayres, M.D., Secretary.

Social.—Under the auspices of the Board of Women Managers of the Hahnemann Hospital a Fete of Nations was held at Latham Park, Old York Road and City Line on the Elkins Estate, on Wednesday, June 14, 1916, from noon until 10 in the evening. The booths representing the different nations in colors and costumes was a charming feature of the occasion. Everyone was kept busy enjoying the different amusements which were well patronized by the large number of people who attended the fete. The affair was in every way a success and great credit is due those who had charge of the management of the fete.

Y. M. C. A.—The nineteenth annual Pennsylvania State Y. M. C. A.

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The institution offers a **premedical preparatory year** covering these requirements to students desiring to enter from high schools.

Important Announcement

This is the last year (1916) that students will be accepted on the basis of one year of college work. After January 1918 two years of college credits will be required of students desiring admission to the medical course.

The College Grants Two Degrees. To successful candidates on graduation, namely, the degree of **Doctor of Medicine** and the Special degree of **Doctor of Homeopathic Medicine**.

Clinical Opportunities. The College has facilities for clinical opportunities that are unsurpassed. Hahnemann Hospital alone admitted and treated over 25,000 patients last year. The College also is affiliated for teaching purposes with the Children's Homeopathic Hospital, St. Luke's Homeopathic Hospital; West Philadelphia General Homeopathic Hospital; Allentown State Hospital for the Insane and the Municipal Hospital for Contagious Diseases.

A comprehensive system of clinical instruction in which ward and bedside instruction and individual work on the part of the student in the wards and in the laboratories, forms a large part of the course during the junior and senior years.

Special attention is given to the subject of homeopathic materia medica and therapeutics, the study of which is pursued throughout the entire four years of the medical course.

Post graduate instruction is offered to the profession throughout the year on clinical and laboratory subjects. For information address Hahnemann Medical College, 226 N. Broad Street, Philadelphia, William A. Pearson, M. D., Ph. D., Dean, Frank H. Widman, M. D., Registrar.

Physical Directors' Educational Institute was held in Philadelphia June 6-9, 1916. The different sessions were well attended and keen interest was shown by those interested in the work. Thursday afternoon's session was presided over by Dean Wm. A. Pearson, of Hahnemann Medical College, who filled the chair with much grace and dignity. The following homœopathic physicians took part in the program, their titles of subjects being as follows: "Surface Anatomy, with Special Reference to Medical Surgery Landmarks" (Illustrated), by H. L. Northrop, M.D.; "The Relationship of the Heart to Physical Exercise," G. Harlan Wells, M.D.; "The Relation of Venereal Diseases to Health" (Illustrated), L. T. Ashcraft, M.D.

The Allegheny County Homœopathic Medical Society held its regular meeting June 21st, in the Wallace Laboratory, Pittsburgh, Pa. The Society was favored with a very excellent and instructive talk by Dr. D. Willard Flint, orthodontist, Pittsburgh. He demonstrated by lantern slides the deformities produced by the premature extraction or decay of certain of the milk teeth, and also its relation to mouth breathing and the generally poor health of this type of children. We believe it would be worth while for any society to secure Dr. Flint to repeat this lecture for them.

Charles A. Ley, M.D., Secretary.

For Sale or Rent.—The office of the late Dr. S. B. Weaver, with fixtures, surgical appliances, good medical library, and large well stocked medicine case of homœopathic remedies. Apply at once to S. Malcolm Weaver, or Mrs. S. B. Weaver, Littlestown, Pa. On line of P. R. R.

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The Neurasthenic Invalid.—Like the poor, the neurasthenic is "always with us," and while the stress and strain of modern life and living continue, the physician will be called upon to treat the more or less chronic invalid who exhibits all sorts of bizzare symptoms, in endless and kaleidoscopic variety. It is, of course, an easy matter to advise the physician to search out and remedy the operative cause of the disorder, but it is not always as easy to do this, especially when no organic changes are discoverable. Purely symptomatic treatment is usually essential, in order gain and retain the confidence of the patient. There is, however, one pathologic finding in a large majority of cases, and that is anemia of greater or lesser degree. This condition should be corrected, and for such purpose there is no better remedy than Pepto-Mangan (Gude). When a hematinic is indicated for a nervous, cranky man, or a finicky, more or less hysterical woman, Pepto-Mangan is peculiarly serviceable, as the patient cannot consistently object to the taste, which is agreeable to everyone. The digestion is not interfered with in the least, constipation is not induced, and the blood-constructing effect of the remedy is prompt and certain. It is always worthy of trial in the anemia of the neurasthenic invalid.

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THE HAHNEMANNIAN MONTHLY NEWS AND ADVERTISER

A Medical Newspaper

AUGUST, 1916

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Surgical and Gynecological Nursing. By Edward Mason Parker, M.D., F.A.C.S., Surgeon to Providence Hospital, Washington, D. C., and Scott Dudley Breckenridge, M.D., F.A.C.S. With 134 illustrations. Published, Philadelphia, J. B. Lippincott Company.

The object of this volume is to present to the student and graduate nurse a practical statement of those procedures that fall within the realm of general surgery and gynecology. The work is very complete and comprehensive, and if we were to make any criticism of the text it would be that its title is of a rather technical character, as it is a work which would appeal more to the doctor or medical student rather than to the average nurse, in our judgment.

Pulmonary Tuberculosis. By Maurice Fishberg, M.D., Clinical Professor of Tuberculosis, University and Bellevue Hospital Medical College; Attending Physician, Montefiore Home and Hospital for Chronic Diseases, New York. Octavo, 639 pages, with 91 engravings and 18 plates. Cloth, \$5.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

It is essential that the physician in general practice, who is frequently called upon to treat pulmonary tuberculosis, should have at hand a work which will give him not only the etiology of the disease, but also the meth-

ods of treatment best adapted to the needs of the individual case and the conditions under which that treatment must be given to secure the best results and to expedite an ultimate recovery. Such a work has been prepared by Dr. Fishberg, whose wide experience as a specialist, practicing in the most congested city of America, and as a teacher of this subject in the University and Bellevue Hospital Medical College of New York, has given him a comprehensive grasp of the general practitioner's needs. His ability to meet these needs and present them in useful form is evident in every page of his book. It is at once completely authoritative and intensely practical.

At least ninety per cent. of tuberculous patients must be cared for in their homes, not alone because of the inadequacy of institutional accommodations, but also because most patients can thus be cared for at less expense to themselves and to the community. Treatment in the home, however, may be fraught with imminent dangers not only to the patient but to other members of the household, unless the right methods are employed and proper precautions against infection are taken. Ideal as institutional treatment is in many cases, sanitarium methods cannot be applied in their entirety to patients who are not under the strict supervision and discipline prevailing in institutions.

The treatment of pulmonary tuberculosis presented in this book is based on the author's experience with patients in New York City. Some of them are inmates of institutions, but even these had to be cared for before admission and after their discharge. Emphasis is laid on the fact that in most cases the patient can be given the benefit of rest, fresh air and proper food in his home as well as in a sanitarium. The immense utility of sanitarium treatment is emphasized, but its limitations are carefully enumerated. Medicinal treatment has not been neglected, because it is in many cases of more value than some have been inclined to think. The most recent method of treatment, artificial pneumothorax, has been given in detail because of its efficiency in cases where everything else has failed. Dr. Fishberg has carefully studied the literature and has presented the facts as established by leading modern observers and investigators, co-ordinating, elucidating and supplementing the knowledge thus assembled with the results of his own specialized private and hospital practice. The result is a work which makes clear the problems encountered in the treatment of pulmonary tuberculosis and supplies the student with the basic knowledge essential to the successful handling of this disease. The usefulness of this work to the general practitioner can hardly be overestimated.

Diseases of the Throat, Nose and Ear. By William H. Kelson, M.D., F.R.C.S. (Eng.); Surgeon London Throat Hospital. Oxford University Press. 270 pp., 86 illustrations, 4 colored plates. \$3.00.

The difficulty of covering the large field of Rhinology and Otology in such a small work has been admirably accomplished by omitting voluminous chapters on Anatomy and Physiology, and as the book is intended especially for general practitioners and senior students, detailed technique in regard to such operations (e. g., mastoid) as must be relegated to specialists is omitted. Close attention is given to office diagnosis and technique of examinations for differentiation, and the illustrations for these points are especially good. The field of accessory sinus disease appeals strongly to the author, and a large amount of space is given to this subject, including several X-ray photographs which are not especially clear. It is a book admirably adapted for its purpose.

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This issue of *International Clinics* includes a very interesting article by Mayer on a new method of treating chorea. Thomas E. Satterthwaite contributes a valuable article on drug therapy in cardio-vascular diseases. A number of important articles on surgical and gynecological subjects are also included.

Progressive Medicine. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics, etc., etc., Jefferson Medical College, Philadelphia, Pa. Assisted by Leighton F. Appleman, M.D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia, etc., etc. Vol. II. Lea & Febiger, Philadelphia and New York.

This volume of *Progressive Medicine* contains a valuable summary of our present knowledge of Hernia. Dr. Wm. B. Coley devotes fifty-two pages to this subject which is of great interest and importance to both surgeons and general practitioners. Dr. John C. A. Gerster reviews the subject of Abdominal Surgery, taking up particularly the subject of Gun Shot Wounds of the Abdomen and the recent advances that have been made in the surgery of intestines and gall bladder. John G. Clark contributes a review of the literature of the past year on the subject of Gynecology, and Alfred Stengel a similar review of Diseases of the Blood and other Constitutional Disorders.

American Illustrated Medical Dictionary (Dorland). A new and complete dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology and kindred branches; with new and elaborate tables. Eighth Revised Edition. Edited by W. A. Newman Dorland, M.D. Large octavo of 1135 pages, with 331 illustrations, 119 in colors. Containing over 1,500 more terms than the previous edition. Philadelphia and London: W. B. Saunders Company, 1915. Flexible leather, \$4.50, net; thumb index, \$5.00 net.

This classical work has, for many years been the familiar companion of most physicians and now appears in a revised and enlarged form in its eighth edition. A detailed description of its contents is not necessary as they are familiar to all. The book is not an encyclopedia but a dictionary in the proper sense of the term, which aims to furnish full definitions of the terms used in medicine and kindred branches with collateral information such as anatomic and clinical tablets, tabulated lists of economical tests, stains and staining methods, systems of treatment, etc. The

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Vouchers } , *M. D.*

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present condition has been brought thoroughly up to date. Several new terms and tests both clinical and laboratory have been added.

Elementary Bacteriology and Protozoology for the Use of Nurses. By Herbert Fox, M.D., Director of the William Pepper Laboratory of Clinical Medicine in the University of Pennsylvania; Pathologist the Zoological Society of Philadelphia, etc. Second edition revised and enlarged with illustrations. Lea & Febiger, Philadelphia and New York.

This work has been prepared for the purpose of presenting to nurses the fundamental facts of bacteriology that have any bearing upon the practical care of the sick. Emphasis has been laid upon how bacteria pass from one individual to another; how they enter the body and act when once within and their manner of exit. Various methods of disinfection and descriptions of the method of collecting specimens for bacteriological examination are given. The work is a very practical and simple presentation of this important subject.

Infections of the Hand. A Guide to the Surgical Treatment of Acute and Chronic Suppurative Processes in the Fingers, Hand and Forearm. By Allen B. Kanavel, M.D., Assistant Professor of Surgery, Northwestern University Medical School; Attending Surgeon, Wesley and Cook County Hospitals, Chicago. New (3d) edition, thoroughly revised. Octavo, 498 pages, with 161 illustrations. Cloth, \$3.75, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

The importance of this work to all surgeons is demonstrated by the fact that it has passed so quickly through two large editions. The urgent demand for a third has given the author an opportunity to enhance the value of his monograph by a thorough revision and by the addition of two chapters: the first upon the "Relation of Acute Infective Processes to Industrial Pursuits," and the second upon "Plastic Procedures Instituted for the Correction of Deformities." The entire work has been thoroughly revised and enlarged, and a number of new illustrations have been added.

The enormous economic significance of infections of the hand is coming to be universally recognized, and there is probably no other class of cases where malpractice is more common or unfortunate results of treatment more frequent. The subject of this book is, therefore, of the greatest importance to every surgeon and general practitioner. The surgeon who does casualty work or has charge of industrial accidents will find the work invaluable, and many deformed hands might be prevented if every practitioner were familiar with the importance of this subject and with the complete manner in which this book handles it.

The practical character of this work may be shown by the following quotation from the preface: "The chapters are so grouped that the busy practitioner can find the part dealing with his particular case quickly. Given a case in which the practitioner is in doubt, he should read the chapter upon 'Diagnosis and Treatment in General.' This will indicate the group into which his case falls, and will also direct him to the proper sections of the book where cases of that nature are treated in detail." Any physician who carefully follows Kanavel will have his conception of the subject greatly clarified. The various chapters on treatment of different conditions are very full, the technique is well described, and the after-treatment is carefully given. The illustrations are remarkably clear and instructive. Following several of the chapters, a definite, complete resume is given, which will be found most helpful.

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On to Reading.—For the first time in the history of the State Homœopathic Medical Society the annual meeting will be held at Reading this year, at the invitation of the Hahnemannian Medical Society of Berks County. Of recent years the meetings have been held at various summer resort hotels, and it seemed wise to the Trustees to vary this program by holding a meeting in a city where there can be no disturbance of the clinical sessions by the other attractions of the hotel, and where there are facilities for holding clinics. However, by no means let this mislead you into supposing that the members of the local society have not been busily engaged in working out an interesting line of entertainment, which has not been allowed to interfere with the sessions of the Society, but which will provide an ample variety of pleasure for all the members and their families.

The Berkshire Hotel, where the meeting will be held, is a new hotel with admirable facilities for our use. The business and clinical meetings will be held in a large assembly room, and on this same mezzanine floor a large list of exhibitors of various medical appliances will be stationed.

A special rate has been allowed by the hotel to the members on the American plan, and you are urged to make reservations in advance. Most of the rooms in the Berkshire Hotel are provided with private baths. Reading is splendidly situated for ease of access, being readily reached by the Reading and Pennsylvania railroads and by good State roads for those who wish to come by automobile.

The various clinical bureaux have arranged an attractive program of scientific papers and operative clinics. Infantile paralysis, which has assumed such alarming proportions, will be among the important subjects dwelt upon.

A smoker will be tendered the members on Tuesday evening, September 12th, in the grill room of the Berkshire. On Wednesday evening the following will be the program of entertainment: Banquet at 6 P. M., vau-deville at 8 P. M., dancing at 10 P. M. In addition, numerous automobile rides have been arranged both for the members and their families, and the entertainment of the ladies will be provided for by Dr. Margaret Hassler Schantz, assisted by the wives of the local physicians. The general entertainment committee has as its chairman Dr. D. C. Klein, which assures us of most generous results. Dr. C. R. Haman is chairman of the Exhibits Committee, and Dr. Ray C. Klopp is chairman of the Publicity Committee. It is believed that this meeting will be one of the best ever held, and the members are urged to bring their families. The meeting will be held September 12th, 13th and 14th. Make arrangements at once to take part of your vacation at that time.

Wanted.—A good Homœopathic physician to occupy the offices of Dr. James A. Osborn, deceased. Centrally located, on trolley line. Has been a doctor's stand for over thirty years. A good prescriber is in demand. A man with some experience preferred. For particulars apply to Mrs. J. A. Osborn, 130 S. Front Street, Milton, Pa.

Galen Hall in the Mountains, at Wernersville, nine miles from Reading, will be a delightful place to spend the week-end after the State Society meeting. Write early for reservations, or get in touch with Dr. Hillegas, who is arranging a party to go.

Cod Liver Oil in Hot Weather.—In Cord. Ext. Ol. Morrhusse (Hagee) the clinician who seeks the utmost from his therapeutic and dietetic aids will find the ideal cod liver oil preparation for hot weather. Patients who rebel against the less palatable emulsions and complain of continued intolerance, will take Cord. Ext. Ol. Morrhusse Comp. (Hagee) over long periods without being subjected to the slightest disagreeable gastric symptoms. In securing this extraordinary degree of palatability for their product the manufacturers have not sacrificed the slightest therapeutic or nutritive effect of the oil, for their process of manufacture, whilst eliminating the grease, retains in the finished product the essential element of the oil.

Mulford Exhibit at the Meeting of the American Medical Association.—One of the best indicators of the progress that has been made in the treatment of disease by means of biological remedies, such as antitoxins, serobacterins, bacterins, etc., seen at the annual meeting of the American Medical Association, held at Detroit, June 12th to 16th of this year, was the exhibit of products of this nature arranged by the H. K. Mulford Company.

Less than twenty-five years ago biological remedies were rarely used by physicians, and the rapid progress made in the manufacture of these valuable adjuncts to the healing art has been most remarkable.

Among the most valuable assets to the practitioner shown in the exhibit were the displays of mercurialized serum for the treatment of cerebro-spinal and systemic syphilis, and the various diagnostic tests, including the Schick test for diphtheria, the tuberculin test, the typhoidin test for typhoid and the Luetin test for syphilis.

Judging by the reports of health officers and others on the good results obtained from vaccination against typhoid, the administration of diphtheria antitoxin, tetanus antitoxin, etc., the Mulford insignia bearing the words "For the conservation of life" at the head of each unit of the exhibit was indeed very appropriate.

PENNSYLVANIA STATE NOTES.

Ralph Bernstein, M.D., Editor.

Quite a vigorous contest was waged for the Presidency of the American Institute of Homeopathy, but Dr. Wm. W. Van Baun, a prominent and enterprising Philadelphia practitioner, was victorious in obtaining the honor. It would have been a difficult matter to have made a stronger or a more acceptable selection for the position, and the members of the association have made an excellent and admirable choice in the selection of Dr. Van Baun.

The American Institute of Homeopathy is the oldest national medical organization in America, and one of the most prominent. Its membership is composed of leading members of the profession throughout the country, and it is especially gratifying to Philadelphians that the society should have come to the Quaker City in the choice of its chief executive official.

Dr. Van Baun is a widely known physician, with offices located at 1404 Spruce Street, where he enjoys a large and important practice. Dr. Van Baun graduated from Hahnemann Medical College in the Class of 1880, and took a post-graduate course at the University of Vienna. He is a trustee of Hahnemann Medical College and Hospital, and is Vice-President of the General Faculty and Professor of Dietetics.

The Germantown Homœopathic Medical Society of Philadelphia held its regular monthly meeting at the Mineral Springs Hotel, at Willow Grove, Pa., on Monday evening, June 19, 1916. Dr. Wm. Rendell Williams presented a most interesting paper, the title of which was "The Use of Digitalis." An elaborate supper was served at 10 o'clock, and the meeting was an enjoyable one.

C. B. Hollis, M.D., Secy.

The Chester County Homœopathic Medical Society held its regular monthly meeting at the Swan Hotel, Downingtown, Pa., on Thursday, July 13, 1916, at 1 P. M. The scientific program consisted of the following: "Infant Feeding," H. Terry, M.D.; "Lantern Demonstration of Diseases of the Eye," W. W. Speakman, M.D. The program, which was an interesting one, brought forth a hearty discussion, after which an elaborate dinner was served. The meeting was largely attended by members as well as many visiting physicians, all of whom had a very enjoyable time.

J. Oscar Dicks, M.D., Secy.

Personals.—Dr. Benjamin K. Fletcher announces the removal of his office to 344 South Sixteenth Street, Philadelphia.

Mrs. Catherine Haggerty announces the marriage of her daughter, May Catherine, to Dr. Work A. Streeter, on Monday, July 3, 1916, at Philadelphia.

Dr. Edwin H. Wolcott, of Rochester, N. Y., has been elected President of the Board of Managers of Iola Sanatorium.

The Training School for Nurses of the Homœopathic State Hospital, Allentown, Pa., held its first graduating exercises on Wednesday afternoon, June 21, 1916, at 2.45 o'clock. Rev. John M. G. Drames pronounced the invocation. Dr. Gilbert J. Palen addressed the graduates and Dr. Henry I. Klopp presented the diplomas to the graduates. Dr. J. J. Tuller, Professor of Neurology and Psychiatry, Hahnemann Medical College and Hospital, Philadelphia, presented the prizes awarded by Dr. E. Maule Blew for the best work in anatomy and physiology to the first year's class. The Rt. Rev. Monsignor Peter Masson, of Allentown, Pa., pronounced the benediction. The music which was rendered at the exercises was thoroughly enjoyed by all present. Following are the graduates:

Misses Sadella Reed, Virginia M. Beam and Edith Parry; Messrs. Francis J. Brady, Floyd B. Weir and C. H. Vogelman.

Dr. J. Marvin Hanna, Musical Director Temple University Glee Club, Philadelphia, acted as accompanist for the occasion.

The 1916 Meeting of the American Institute of Homœopathy was held in Baltimore, Md., from Sunday evening, June 25th, to Saturday, July 1st, and was one of the best ever held in the history of the Institute. There was a total registration of 598 members. The papers presented by the various bureau were of marked excellence and were greeted by an attentive and appreciative audience, as the local Committee on Arrangements had refrained from putting any attractive diversions during the times assigned for the clinical papers. The principal important measures discussed were reorganization and federation. The former subject was placed in the hands of a strong active committee, while the latter was referred to the various state societies for definite individual report of opinion. Dr. Wm. W. Van Baun, of Philadelphia, was elected President

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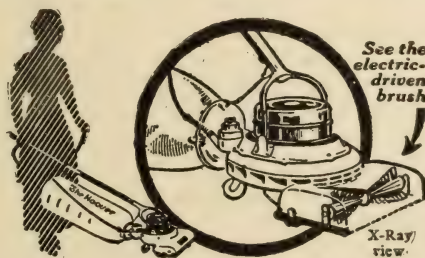
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of the Institute for the ensuing year. Three men were nominated unanimously for governors in the American College of Surgeons: Dr. J. C. Wood, Dr. Wm. B. Van Lennep and Dr. Henry A. Whitmarsh. Sunday night was devoted to the usual memorial services. Monday night President Aldrich's formal address on "Loyalty" fulfilled the promise of his business address in the morning. Clinical and business meetings of the following associated societies were held during the Institute meeting: The Obstetrical Society; Surgical and Gynecological Society; National Society of Physical Therapeutics; American Homœopathic Ophthalmological, Otological and Laryngological Society. The latter had held in New York two days of clinics preceding the Institute meeting, and plan to make these clinics a permanent feature of their meetings.

Baltimore and its physicians were most generous in entertainment. The program included shore dinners, boat trips down the bay, automobile rides and a trip to the Naval Academy at Annapolis, and a cool evening on the roof garden at the Hotel Emerson, in which hotel the meetings were held. The Institute has every reason to feel gratified with this year's meeting and also with its reception by local men in Baltimore who made it possible.

Typhoid Fever: A Rational Treatment.—"In the treatment of typhoid fever, what is necessary?" asks a medical writer, who proceeds to answer his own question in this wise:

"1. Endeavor to cut short the course of the attack and to lessen the danger period during which there is risk of complications.

"2. Meet any complication which may arise, and be ready with the indicated treatment in the event of such complications.

"3. Guard against the danger of relapse by prolonging treatment beyond the period of symptoms and by general supervision during convalescence.

"4. Demand rest in bed and a milk diet, with unsweetened lemonade or barley water.

"5. Combat the effects of the toxemia from the infecting organisms by administering typhoid phylacogen."

Typhoid fever, as is well known, is an acute infectious disease, due to the entrance into the body of the bacillus of Eberth, commonly designated the bacillus typhosus. And while this bacillus is recognized as the specific cause, it is conceded that complicating organisms, as the bacillus coli communis, the bacillus dysenteriae, the paracolon bacillus, the pneumococcus, the staphylococci and the streptococci, may play an appreciable part in the disease process.

In view of these facts, treatment with typhoid phylacogen would seem a rational procedure, this phylacogen consisting of a culture filtrate of the bacillus typhosus of Eberth and mixed infection phylacogen. In support of the treatment it is said that a marked effect in all favorable cases is the comparatively prompt subsidence of the fever and the early establishment of convalescence. It is also pointed out that, while shortening the disease period, this therapy also simplifies treatment. It consists ordinarily of one injection a day and does away with ice, the bath tub and supplementary attendants. For the technique of administration, suggestions as to dosage, etc., physicians are referred to the pamphlet "Typhoid Phylacogen," issued by Parke, Davis & Co., a comprehensive booklet containing information that cannot fail to be of interest and value to any practitioner.

THE HAHNEMANNIAN MONTHLY NEWS AND ADVERTISER

A Medical Newspaper

SEPTEMBER, 1916

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Diseases of the Eye. By George E. deSchweinitz, M.D., LL.D., Professor of Ophthalmology in the University of Pennsylvania. Eighth edition, thoroughly revised and enlarged. Octavo of 754 pages, 386 text illustrations, and seven lithographic plates. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, \$6.00 net; half morocco \$7.50 net.

The demand and necessity for a new (eighth) edition of this standard textbook on "Diseases of the Eye" indicate both the recent advances in ophthalmology and the continued popularity and success of the book. The entire work has been reset and appears in a greatly improved form.

Reference to the following subjects appears for the first time in this edition: "Clifford Walker's Method of Testing the Visual Field"; "Swimming Bath Conjunctivitis"; "Anaphylactic Keratitis"; "Family Cerebral Degeneration with Macular Changes"; "The Ocular Symptoms of Diseases of Pituitary Body"; "Preliminary Capsulotomy (Homer Smith's Operation)"; "Iridotaxis (Borthen's Method)"; "Capsulomuscular Advancement with Partial Resection (Ziegler's Method)"; "Tenotomy of the Inferior Oblique"; "Window Resection of the Nasal Duct (West's Operation)."

Cerebro-Spinal Fever. By Thomas J. Horder, M.D., Assistant Physician St. Bartholomew's Hospital, Major (Temp) R.A.M.C., serving with the British Expeditionary Force. Contains seventeen illustrations. London: Henry Frowde and Hodder and Stoughton, Oxford University Press, Warwick Square, E. C., and 35 W. 32d street, New York.

The renewed interest that has been taken in this during the past few years has resulted in the discovery of many new facts of diagnostic and therapeutic value. In this little monograph Dr. Hodder has summarized the most recent information in regard to the clinical diagnosis and treatment of this important malady.

Handbook of Massage for Beginners. By L. L. Despard, Member and Examiner, Incorporated Society of Trained Masseuses. Price, \$2.00. London: Henry Frowde & Hodder & Stoughton, Oxford University Press, Warwick Square, E. C., and 35 West 32d street, New York City.

The object of this work is to present in a concise form such information in regard to the theory and practice of massage as shall enable persons without special technical training to cover a working knowledge of the subject. Special attention is given to the subject of massage in the treatment of injuries resulting from bullet and shrapnel wounds and other injuries of a military character.

A Text-Book of Physiology: For Medical Students and Physicians. By William H. Howell, Ph.D., M.D., Professor of Physiology, Johns Hopkins University, Baltimore. Sixth edition thoroughly revised. Octavo of 1043 pages, 305 illustrations. Philadelphia and London: W. B. Saunders Company, 1915. Cloth, \$4.00, net; half morocco, \$5.50, net.

There is a great tendency on the part of physicians and surgeons during the past two or three years to place the emphasis upon the science of physiology that its importance deserves. The pathology of the dead room which, for many years, was the chief concern of medical men has at last given place to the so-called living pathology and physiology. The value of a comprehensive and authoritative work on this subject therefore must be apparent to every physician desirous of keeping abreast of the times. The success that has been accorded Dr. Howell's work can be traced to the fact that he has used great judgment in limiting the material selected and secondly, to the simplicity and lucidity he has exercised in the presentation of facts and of theories. The work covers the entire field of physiology and we are pleased to note important additions that have been made to those sections dealing with subjects of "Nutrition," "The Internal Secretions," "The Physiology of the Heart." We take great pleasure in commending this work to the practical physician as one that is comprehensive and at the same time sufficiently condensed to save unnecessary waste of time.

Bacteriology, General, Pathological and Intestinal.—By Arthur I. Kendall, B.S., Ph.D., Dr. P.H., Professor of Bacteriology in the Northwestern University Medical School, Chicago, Ill. Octavo, 651 pages, with 98 engravings and 9 colored plates. Cloth, \$4.50, net. Lea & Febiger, publishers, Philadelphia and New York, 1916.

This work covers fully the advances of bacteriology along the lines of

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morphology, staining and diagnosis, and the preparation and use of cultural media. It gives attention, moreover, to the problems of immunology as related to the chemistry of bacterial activity, which subject is presented in concrete and concise form, indicating the relation of the chemistry of bacterial activity to the biology of the bacteria.

The relation of the chemistry of bacterial nutrition to the study of intestinal bacteriology in health and disease is clearly set forth in the author's chapter on intestinal bacteria. Throughout the work emphasis is laid on what the bacteria do rather than on what they are, since interest naturally is centered in the host rather than in the parasite.

Concise statement, clear expression and the elimination of theoretical considerations in favor of essentials are characteristics of this work, and its usefulness will impress itself more and more on the practitioner or student as he avails himself of its guidance. Every step in every process is made clear. The details of laboratory equipment, the minutiae of laboratory technic, and the use and value of apparatus receive careful attention.

Historical notes stimulate interest in the study, and aid in the comprehension of the subject by showing the steps in the development of modern Bacteriology. The author's emphasis on the applications of Bacteriology in Etiology and Preventive Medicine is a point of value. The sections dealing with the physiological functions of bacteria are most enlightening, and the latest knowledge of complement fixation, hemolysis and the reactions of immunity is adequately presented.

The Treatment of Diabetes Mellitus, with Observations Upon the Disease Based Upon One Thousand Cases.—By Elliott P. Joslin, M.D., Assistant Professor of Medicine, Harvard Medical School; Consulting Physician, Boston City Hospital; Collaborator to the Nutrition Laboratory of the Carnegie Institution of Washington, in Boston. Octavo, 440 pages, illustrated. Cloth, \$4.50, net. Lea & Febiger, publishers, Philadelphia and New York, 1916.

The New Treatment of Diabetes—the Allen treatment—by means of fasting, and the importance of physical exercise for diabetic patients, are fully discussed in this work. Fasting is in itself a distinct advance, but the practical simplification of treatment which it entails is an almost greater advantage.

Oddly enough, with the completion of this book came the completion of the author's first thousand cases treated in private practice. The book contains the results of his experience with these cases and is written for the general practitioner. Incidentally, it contains nothing which diabetic patients may not read with profit, and it will be found a useful book to place in their hands.

Complications of Diabetes are described along with their treatment, thus saving repetition and showing the doctor how to handle each complication when it develops. The hopeful tone which the author's experience has enabled him to assume regarding such complications as tuberculosis, arteriosclerosis, and gangrene will be found most encouraging. The section on Surgery will enable the surgeon to operate on diabetic patients without sending them into coma.

Under Aids in the Practical Management of Diabetes Cases the author gives a list of things every patient should know, complete directions for nurses, history charts and dietary and urinary records now success-

Applicants for membership should sign the following blank and forward with check for Five Dollars to Dr. W. N. Hammond, 313 Weightman Building, Philadelphia, Pa.

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in the county of , *State of Pennsylvania, hereby makes application for membership in the Homoeopathic Medical Society of the State of Pennsylvania, and agrees to abide by its Constitution and By-Laws if elected a member.*

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fully used in many institutions, and the actual diets employed in typical groups of cases. The section on Foods and Their Composition is so arranged as to make it unnecessary for physicians owning this book to possess any other book on food values, either for treatment of diabetic or other patients. Standard recipes and diets for severe cases of diabetes are given, notably an appropriate diet for severe diabetic patients who are poor.

A Manual of Otology. For Students and Practitioners.—By Charles Edwin Perkins, M.D., F.A.C.S., Professor of Clinical Otology in New York University and Bellevue Hospital Medical College; Associate Aural Surgeon to St. Luke's Hospital; Assistant Aural Surgeon, New York Eye and Ear Infirmary; Fellow, American Otological Society, New York Otological Society, New York Academy of Medicine, etc. 12mo, 445 pages, with 120 engravings. Lea & Febiger, Philadelphia and New York. Cloth, \$3.00 net.

Diseases of the ear have assumed a major importance within recent years, largely because of the physiologic and pathologic relations that have been established between the ear and its adnexa and the brain; and also because of the growing role played by the infectious micro-organisms in ear diseases. Moreover, diseases of the ear are among the most common of the special sense disorders with which the general practitioner has to deal, and it is very essential that he should be up-to-date in his practical knowledge of the subject.

The author's long and very full experience both as a specialist and teacher has enabled him to produce a book which covers the subject completely and in a clear and concise manner. The handy size of the manual commends it for students' and practitioners' use; and nothing essential to a thorough understanding of otology has been omitted.

The prominence given to the five characteristics of the membrane (color, luster, position, integrity and structure) in the chapter on the examination of patients and the clarity with which the changes in otoscopic appearances are pointed out in the consideration of diseases of the ear should enable the reader to cultivate a systematic method and to form his diagnosis more readily.

The sections on the inner ear give the present knowledge of the subject and are based largely upon the author's personal experience. The relation of the Chorda tympani nerve to facial paralysis and middle ear disease—not clearly given in any other book on otology—is here given in detail and represents the author's own observations.

Perkins' Manual of Otology represents the present status of this specialty, clearly set forth in practical, ready-to-use shape. It is a guide which can be followed by the student in college and by the general practitioner, as well as by the specialist, with both pleasure and profit.

Progressive Medicine: A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics, Materia Medica, and Diagnosis in the Jefferson Medical College, Philadelphia, etc., etc. Assisted by Leighton F. Appleman, M.D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia, Pa. Vol. III. September, 1916. Lea & Febiger, Philadelphia and New York.

This volume of Progressive Medicine deals with Diseases of the Thorax and its Viscera, Dermatology, Obstetrics and Diseases of the Ner-

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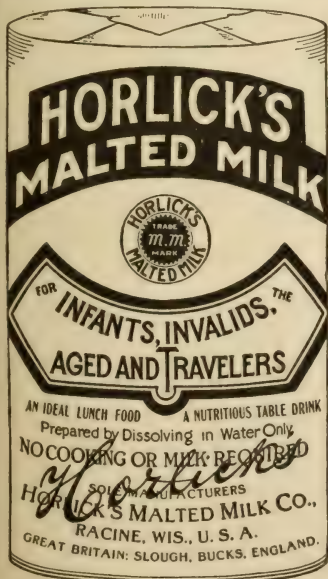
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vous System. Considerable space has been given to a discussion of the subject of "Blood Transfusion," which has proven of value in various forms of anaemia. The subject of "Syphilis of the Heart—Its Recognition and Frequency" are also discussed. Of considerable interest is Sir Jas. MacKenzie's report on the "Effect of War on the Soldiers' Heart." It has been found that the condition is best recognized by tests of cardiac efficiency rather than by ordinary physical signs. Dr. Edward P. Davis has carefully reviewed the "Newer Methods of Diagnosing Pregnancy with Comments on Their Practicability." The subject of Syphilitic Diseases of the Nervous System is also discussed in detail.

Diagnosis and Treatment of Surgical Diseases of the Spinal Cord and Its Membranes. By Charles A. Elsberg, M.D., F.A.C.S., Professor of Clinical Surgery at the New York University and Bellevue Hospital Medical College. Octavo of 330 pages, with 158 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Cloth, \$5.00, net.

This volume is a record of the personal experiences in the surgical treatment of diseases and injuries of the spinal cord and its adnexa. The text in the main deals with a consideration of the diagnosis and treatment of Diseases of the Cord that may require surgical interference, and all matter that belongs more properly to the text books on neurology has been given but brief mention. Dr. Elsberg has had abundant opportunities for experience in this kind of surgical work and he has placed it before the profession, and those who desire information on this important subject will find the present volume a practical and useful source of information.

Report of the Committee on Federation to the American Institute of Homœopathy, Baltimore Session, 1916.—The Congress of States this day in session beg leave to submit to this honorable body, the American Institute of Homœopathy, the following report which outlines in the rough, the cardinal issues concerning federation of our State societies with the American Institute.

It has been deemed advisable to develop federation territorially, using the State societies as the first step and later extending the plan to the local, district and county societies through State jurisdiction.

In order that the plan be not too cumbersome and unwieldy to begin with, we have considered at this time only those features necessary to putting federation into action.

A committee of four was appointed by the chairman of the Congress with instructions to draft a simple plan of federation. This report follows:

Report on Federation.

First: That federation must originate in the parent body, the American Institute of Homœopathy, and that the State societies receive first consideration as a basic principle upon which to work. When this is completed federation be extended to the local, district, and county societies and clubs. That the step plan of federation uniting the smaller societies with the State, and the State with the National or parent body be adopted.

Second: That federation be by a form of agreement, that is, that the State societies adopt federation by resolution changing their constitution and by-laws to conform to the constitution and by-laws of the American Institute of Homœopathy. That they agree to stand by the

plan of organization of said Institute and with other constituent societies unite in federation to form the American Institute of Homœopathy.

Third: That the apportionment of delegates be one delegate for each State society. One additional delegate for each one hundred members or fraction thereof exceeding 50 per cent., but in no case shall any State delegation exceed four members. These delegates to be elected annually at the annual sessions of the State societies.

Fourth: That each State society voting to federate with the Institute thereby automatically bring its entire membership into the Institute.

Fifth: We recommend that the Congress of States be given the power to nominate all elective officers of the Institute and for this purpose it shall annually present the names of at least two, but not over three members of the Institute for each elective office.

Sixth: That under the federated plan the dues in the Institute be reduced to four dollars (\$4.00), including the Journal, and this amount be collected through the treasurers of the State societies, and remitted to the Institute.

Seventh: That this Congress of States endorse the suggestions which have been made by the Council on Medical Education, that the Institute at an early date establish a permanent press bureau, that this bureau is essential to the success of federation of the homœopathic bodies of the United States, and vital to the perpetuity of homœopathy.

G. Forrest Martin, Chairman, Massachusetts.

Daniel P. Maddux, Pennsylvania.

Sarah N. Kenidall, Washington.

Scott Parsons, Missouri.

This report was presented at a called meeting of the Congress, and adopted unanimously and the chairman was instructed to present the plan to the Institute for its consideration.

The features suggested in the tentative plan as presented under the direction of the Council on Medical Education, such as Section 3. Regulation of Dues. Section 7. Per Capita Tax. Section 9. Medical Defense, and Section 12. Fellowship, we consider of great importance to the federative scheme, but are of the opinion that they are matters that should be promoted and developed at a later date. Let us federate first.

The Congress is pleased to state that out of 32 State societies, 24 have delegates and representation at this preliminary meeting. The vote for federation was unanimous.

Federation.—The following resolution was passed at Reading on September 14th, by the Pennsylvania State Homœopathic Medical Society: "That the Homœopathic Medical Society of the State of Pennsylvania confirms and ratifies the report and action of the delegates to the Congress of States, as reported in the September number of the Journal of the American Institute of Homœopathy; and that this Society wishes to be placed on record as in favor of federation with the American Institute of Homœopathy as soon as the working details are arranged and are mutually satisfactory.

Overcoming Hepatic Engorgement.—Active stimulation of the liver is often urgently needed in certain diseases—notably those of an auto-toxic nature, or characterized by faulty elimination—but not infrequently the efficiency of the remedy used is modified—or completely nullified—by the catharsis incidentally produced. In chionia, a preparation of chi-

onanthus virginica, the practitioner fortunately has an effective cholagogue that can be relied upon to increase the functional activity of the liver to a marked degree, without unduly stimulating the bowels.

Chionia is invaluable, therefore, for relieving hepatic engorgement, overcoming biliousness and promoting free elimination of the biliary products. In other words, the use of Chionia assures the restoration of hepatic efficiency, but unlike other cholagogues, without catharsis or purgation.

Personals.—William Steele, M.D., announces the removal of his offices to 1823 Chestnut street, Philadelphia. Diseases of heart and lungs. Diseases of children. Hours: 9 to 11 A. M.

Francois L. Hughes, M.D., announces his removal to 1425 West Girard avenue, after September 1, 1916. Gynaecology. Office hours: 11 A. M. to 1 P. M.; 6.30 to 8 P. M., except Sunday and Wednesday evenings.

Offices for Sale.—Through the sudden death of Dr. Wm. H. Yeager, late Professor of Therapeutics at Hahnemann Medical College and Hospital, his practice is available to a good homeopathic physician. Information furnished on request. Apply, Mrs. Wm. H. Yeager, 3300 N. 15th street, Philadelphia, Pa.

Half a Century's Progress.—October, 1916, points an epoch in the history of Parke, Davis & Co. The house was founded in 1866—just fifty years ago this month—largely upon the optimism of three or four determined men, backed by a capital that would seem insignificant to-day. There was nothing in its unpretentious origin to foretell the success of after years. And by success we mean not merely material prosperity, but also that broader and more enduring success that is based upon good-will and confidence.

Manufacturing pharmacy was then a crude, imperfect art. Bacteriology, pharmacology and biological pharmacy were as yet unborn. There were no curative sera or vaccines in those days. Prophylaxis was in its infancy. Standardization was unknown.

Fifty years have wrought marvelous changes in means and methods for the treatment of human ills. The *materia medica* has been amplified beyond the dreams of the earlier investigators. Knowledge of pathology has immensely broadened. The empiricism of the past has given way to rational therapeutics, and medicine is taking its rightful place among the sciences.

In all these forward movements Parke, Davis & Co. have had some part—notably as discoverers of new vegetable drugs, as inventors of new chemical compounds, as pathfinders and producers in the field of biological manufacture, as investigators in original research, as pioneers in both chemical and physiological standardization.

The past half-century, as we have intimated, has been remarkable in its contributions to the newer *materia medica*. What will the next fifty years bring forward? Time alone can write the answer. Ours is a progressive age. The science of medicine has not reached its highest development. The physician's armamentarium will be further enlarged and fortified. New remedial agents will come into being. Many existing products will be improved. And with the fulfillment of these conditions, Parke, Davis & Co. (if we may judge the future by the past) are certain to be identified.

POST-TYPHOID RECONSTRUCTION

As a tissue regenerator after typhoid fever, cod liver oil is of the utmost advantage for it supplies the very elements which have been drained away during the protracted illness. But, in choosing a cod liver oil product, it must be remembered that an easily digested preparation, such as

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is necessary, otherwise the weakened gastric apparatus is subjected to too great a trial. Cord. Ext. Ol. Morrhuae Comp. (Hagee) contains everything of therapeutic or nutritional value that the plain oil has — hence its superiority to the plain oil. Its acceptability gives it a special sphere of usefulness in women and children.

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Each fluid ounce of Hagee's Cordial of the Extract of Cod Liver Oil Compound contains the extract obtainable from one-third fluid ounce of cod liver oil (the fatty portion being eliminated) 6 grains Calcium Hypophosphite, 3 grains Sodium Hypophosphite, with Glycerin and Aromatics.

Katharmon is a delightfully refreshing mouth wash in typhoid fever.

KATHARMON represents in combination Hydrastis Canadensis, Thymus Vulgaris, Mentha Arvensis, Phytolacca Decandra, 10½ grains Acid Borosalicilic, 24 grains Sodium Pyroborate to each fluid ounce of Pure Distilled Extract of Witch Hazel.

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Dr. J. Gordon Ogden, an eminent professor of physics and chemistry states in his book entitled "The Kingdom of Dust,"

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PENNSYLVANIA STATE NOTES.

Ralph Bernstein, M.D., State Society Editor.

The Homœopathic Medical Society of the Twenty-third Ward of Philadelphia held its annual outing on Thursday, July 15, 1916, at the Jeffersonville Hotel. Dinner was served at 1.30 P. M. to a large number of members and their friends. The day was most pleasantly spent, everyone present being highly satisfied with the day's outing.

J. D. Boileau, M.D., Secretary.

The Homœopathic Medical Society of Chester, Delaware and Montgomery Counties held an extra mid-summer meeting at Walber's Riverside Hotel, Essington, on Tuesday, August 15, 1916, at 1 P. M. After a sumptuous dinner was served to all present, the members and their friends were entertained by a member of the Philadelphia Department of Health, who spoke on the subject of "Infantile Paralysis," the same being quite interesting. Another pleasing feature of the occasion was an invitation extended by Instructor Johnson, of the Philadelphia Board of Aviation, to watch the machines fly. This was easily done while all enjoyed a trip on the river. There was a large number in attendance at this meeting, and an enjoyable time was had by all.

Isaac Crowthers, M.D., Secretary.

The Central Pennsylvania Homœopathic Medical Society held its regular monthly meeting at Columbia, on Thursday, August 10, 1916. Dinner was served at 1 P. M., after which the business meeting took place at the Merchants' Association rooms in the Becker Building. The scientific program consisted of the following:

"Fat Constipation in Babies"Dr. E. L. Nesbit, Bryn Mawr, Pa.
 "Mercurius Solubilis Hahnemannii"Dr. R. O. Diehl, Manheim, Pa.
 "Syphilis of the Oral Cavity and Its Conjurers" (Lantern Demonstration)Dr. Ralph Bernstein, Philadelphia.

The meeting was largely attended and an enjoyable time was had by all present.

G. A. Sayres, M.D., Secretary.

The Schuylkill County Homœopathic Medical Society held its regular summer meeting at Hotel Tumbling Run, on Wednesday, August 16, 1916. The scientific program consisted of the following:

"Early Pulmonary Tuberculosis"Dr. Wm. Steele, Philadelphia.
 "The Pathology of Cataract"Dr. F. Nagle, Philadelphia.
 "Radiography by the General Practitioner" (Illustrated by X-ray Plates.)

Dr. G. H. Boyer, Pottsville, Pa.

Dinner preceded the meeting and was a pleasing feature of the occasion. Many members as well as a large number of visiting physicians were in attendance.

Personals.—Dr. George Willis Hartman and Miss Fanny Catharine Livingston announce their marriage on Thursday, the 6th of July, 1916, St. John's Reformed church, Harrisburg, Pa.

Mr. and Mrs. J. C. Post announce the marriage of their daughter Ruth to Dr. F. Erle Spencer, on Saturday, the 22d of July, 1916, Philadelphia.

THE HAHNEMANNIAN MONTHLY NEWS AND ADVERTISER

A Medical Newspaper

OCTOBER, 1916

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Obstetrics—Normal and Operative. By George Peaslee Shears, B.S., M. D., Professor of Obstetrics and Attending Obstetrician at the New York Polyclinic Medical School and Hospital. 419 illustrations. Price, \$6.00. J. B. Lippincott, Philadelphia and London.

In preparing the present volume the author has endeavored to present the subject of obstetrics from an entirely practical standpoint. He has, we feel, very properly omitted elaborate discussions on the embryology of the foetus and has reduced to a minimum the space devoted to developmental anomalies and foetal monstrosities that, after all are comparatively rare and have little bearing upon the everyday practice of the obstetrical art. As a result, more space has been given to those obstetric procedures that are most frequently employed in everyday practice. The illustrations are of special value and interest. Many of them being original photographs. The operative portion of the work is especially valuable and as a whole the work is one that can be highly recommended to students and practitioners as a practical and authoritative guide to up-to-date obstetric work.

Care and Feeding of Infants and Children. A Text Book for Trained Nurses. By Walter Reeve Ramsey, M.D., Associate Professor of Diseases of Children, University of Minnesota, Associate Visiting Physician to the University Hospital, etc, etc. Including suggestions on nursing, by Margaret B. Lettice, Supervising Nurse of the Baby Welfare Association, St. Paul, Minnesota, and Nann Gossman, Nurse

in Charge of Children's Department, University Hospital, Minneapolis, Minn. 123 illustrations. Philadelphia and London, J. B. Lippincott Company.

This little volume has been written as a text book for nurses, and discusses the care not only of infants but of older children. In addition to the ordinary subjects of infant feeding, we find in the text a description of the various diseases of children and the general hygienic care required in their treatment. The work is profusely illustrated and the style of the text clear and rational.

International Clinics, a Quarterly of Illustrated Clinical Lectures and especially prepared original articles on Treatment, Medicine, Surgery, Neurology, Pediaetrics, Obstetrics, Gynecology, Orthopaedics, Pathology, Ophthalmology, Otology, Rhinology, Laryngology, Hygiene and other Topics of interest to students and practitioners. By leading members of the medical profession throughout the world. Edited by H. R. M. Landis, M.D., Philadelphia, with the collaboration of Chas. H. Mayo, M.D., Rochester; Sir Wm. Osler, Bart, M.D., F.R.S.; Rupert Blue, M.D., D.P.H., Washington D. C.; Frank Billings, M.D., Chicago; John G. Clark, M.D., Philadelphia; A. McPherson, M.D., Toronto; James J. Walsh, M.D., New York; J. W. Ballantyne, M.D., Edinburgh; John Harold, M.D., London; Richard Kreitz, M.D., Vienna. Vol. III. Twenty-sixth Series, 1916. J. B. Lippincott Co., Philadelphia and London, publishers.

This volume of International Clinics contains an important article by Lyon on the treatment of "Obesity." We also note two important articles, one by Chas. L. Miner and the other by F. H. Baetzer, on "Diagnosis and Study of Pulmonary Tuberculosis by the X-Rays." Veeder contributes an important article of interest to general medical men on the "Diphtheria Toxin Skin Reaction and Its Application." This test, known as the Schick test, has come to occupy an important practical place in the management of cases of diphtheria.

First Principles in Therapeutics. By Giles Forward Goldsbrough, M.D., Senior Physician to the Honeyman-Gillespie Lecturer on Therapeutics at the London Homœopathic Hospital; Past President of the British Homœopathic Society. London: John Bale, Sons & Danielson, Ltd., Oxford House, 83-91 Great Titchfield street, Oxford street, W., London, Eng., 1916. Price 7s. 6d.

This volume is an amplification of notes and lectures delivered at the London Homœopathic Hospital during the past three years. Among the important subjects considered are: "Taking the Cases," "The Search for the Choice of a Remedy," together with a general review of the principles underlying homœopathic therapeutics. The subject is presented in a very clear and forceful manner.

Therapeutic By-Ways. Being a collection of therapeutic measures not to be found in the text books collected from all sources. Condensed and arranged by Dr. E. P. Anshutz. 195 pages. Cloth \$1.00 net. Philadelphia: Boericke & Tafel, 1916.

This little volume is compiled from hints and suggestions collected by the author during his thirty years' experience in charge of the editorial

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work of a large homoeopathic pharmacy and publishing house. As the author indicates, some of the suggestions may appear fantastic, but we find many practical suggestions that will prove of practical value to physicians in dealing with puzzling cases.

1915 *Collected Papers of the Mayo Clinic, Rochester, Minn.* Octavo of 983 pages, 286 illustrations. Philadelphia and London: W. B. Saunders Company, 1916. Cloth \$6.00 net; half morocco \$7.50 net.

The publication of the papers of the Mayo Clinics has come to be looked forward to by surgeons and by medical men in general as an important one. Even when one looks over these volumes one is impressed with the fact that medicine is a growing science and that our knowledge of diseases especially from a diagnostic standpoint is being entirely rewritten as a result of the work of men of the type that are connected with the Mayo Clinics. The immense amount of material available and the thoroughness with which it is studied from every possible standpoint, together with the care with which the statistics and other data are compiled, makes the material from the Mayo Clinics invaluable to the surgeon and internist, the pathologist and the up-to-date practitioner in any field of medicine. The reports of the Mayo Clinic as published in the volume before us is absolutely necessary to those who desire the latest and most authoritative information in regard to modern surgical and medical diagnosis and treatment.

The Healthy Girl. By Mrs. Joseph Cuning, M.B., (Lond.) Hon. Medical Director to the Open Air School in the London Botanical Gardens, and A. Campbell, B.A., Lecturer in Biology and Hygiene, Technical Institution, Swindon. London: Henry Frowde and Hodder & Stoughton, Oxford University Press, Warwick Square, E. C., and 35 W. 32d street, New York City. Price \$1.75.

This book is an attempt to help the girl who is leaving school and beginning to face life to understand the most important circumstances she is likely to encounter. The author discusses briefly the physiology of the body and the importance of fresh air and breathing, care of the skin, teeth, etc., and deals briefly and sensibly with certain phases of sexual character. The style of the text is clear so as to be readily understood by the class of readers for which it is intended.

Oxford University Press: *Principles of Diagnosis and Treatment in Heart Affections.* By Sir James Mackenzie, M.D., F.R.S., F.R.C.P., LL.D., etc Physician to the London Hospital (in charge of the Cardiac Department); Consulting Physician to Victoria Hospital, Burnley. London: Henry Frowde and Hodder & Stoughton, Warwick Square, E. C., and 35 West 32d street, New York City.

The contents of this book were prepared as lectures to be delivered to the post-graduate students at the Cardiac Department of the London Hospital. On account of the outbreak of the war, it was deemed wise to give the matter to the profession in the form of a monogram. It is unnecessary for the reviewer to state that Sir James Mackenzie is undoubtedly the greatest living authority on the heart in the world; that anything

Applicants for membership should sign the following blank and forward with check for Two Dollars to Dr. W. N. Hammond, 313 Weighman Building, Philadelphia, Pa.

THE HOMŒOPATHIC MEDICAL SOCIETY

OF THE
STATE OF PENNSYLVANIA

Application for Membership

Any Physician of good moral character, who has received the degree of Doctor of Medicine from some regularly incorporated Medical College, and who subscribes to the doctrine "*SIMILIA SIMILIBUS CURENTUR*," may be elected a member of this Society, upon recommendation of the Board of Censors. Dues—five dollars a year—two dollars the first year. Any Physician joining the State Society within two years after his graduation shall pay no dues the first year.

The undersigned, a graduate of
of the year, and practicing medicine at
in the county of, State of Pennsylvania, hereby makes application for
membership in the Homoeopathic Medical Society of the State of Pennsylvania, and agrees to abide by its
Constitution and By-Laws if elected a member.

M.D.

Vouchers { , M.D.
..... , M.D.
Members.

from his pen is looked forward to with interest by every medical man who is interested in the heart and its diseases. One of the great characteristics of Dr. Mackenzie's works is their practical character, and in the present volume he has made particular efforts to reduce the subject to such simplicity that the newer knowledge of the heart as obtained through various mechanical aids, such as the polygraph and electrograph may be made available to every medical practitioner. The contents of the present volume are of an entirely practical character and the busy practitioner of medicine will find it an invaluable source of new and up-to-date information relating to the diagnosis and treatment of cardiac affections.

Influenza Serobacterin Mulford for Immunization against "Colds."—

The usual method of treating acute and chronic respiratory catarrh ("common colds") has proven unsatisfactory chiefly because it has not been generally realized that the disturbance is due to bacterial infection.

The respiratory passages are constantly exposed to inroads of bacteria. When the functions of the mucous membrane are in a weakened condition, the bacteria rapidly increase and cause the well known annoying and persistent chronic cold. Exposure to dampness, drafts, etc., also causes vasomotor disturbances which inhibit the protective functions and an attack of acute respiratory catarrh frequently results.

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Influenza Serobacterin Mixed Mulford—a combination of killed sensitized bacteria secured from a larger number of cases of respiratory catarrh of various types—is useful in catarrhal conditions of the respiratory tract, both for treatment and prevention. It may be used either before a cold is fully developed—to abort it; during the height of a cold—to hasten recovery; or between attacks—for prevention.

Palatable Cod Liver Oil.—Palatable cod liver oil must be doubly effective because the patient can continue taking it. A generation of physicians have looked upon Cord. Ext. Ol. Morrhuæ Comp. (Hagee) as the ideal cod liver oil preparation because of its therapeutic potency and marked palatability. Cord. Ext. Ol. Morrhuæ Comp. (Hagee) is particularly useful in chronic nervous exhaustion when the nerve centres are implicated.

PENNSYLVANIA STATE NOTES.

Ralph Bernstein, M.D., State Society Editor.

The Homœopathic Medical Society of the State of Pennsylvania held its fifty-third annual convention at the Hotel Berkshire, Reading, Pa., on September 12, 13 and 14. The meeting was called to order by the President, Dr. J. M. Heimbach, of Kane, Pa., after which Rev. J. F. Cropp, of Reading, pronounced the invocation. Dr. Fred Wilson, president of the Chamber of Commerce, Reading, Pa., delivered the address of welcome on behalf of the city, and Dr. B. G. Moreland, of Pittsburgh, Pa., responded to the same. The president, Dr. J. M. Heimbach, then delivered his address, after which the reports of the secretary, Dr. I. D. Metzger, Treas-

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urer Dr. Ella D. Goff and Trustees were heard. The standing committees gave their reports which were as follows:

(a)—Organization, Registration and Statistics, I. D. Metzger, M.D., chairman.

(b)—Legislation, H. C. Chisholm, M.D., chairman.

(c)—Membership, W. N. Hammond, M.D., chairman.

(d)—Entertainment, D. C. Kline, M.D., chairman.

(e)—Publicity, R. Bernstein, M.D., chairman.

(f)—Exhibits, C. R. Haman, M.D., chairman.

(g)—Homœopathy, B. F. Books, M.D., chairman.

(h)—House of Delegates, G. J. Palen, M.D., chairman.

(i)—Women's Homœopathic League, Mrs. A. W. Stewart, chairman.

(j)—Delegates to the Interstate Committee of the American Institute of Homœopathy, A. Korndoerfer, M. D., and J. J. Tuller, M.D.

(k)—Congress of States in Relation to the American Institute of Homœopathy, W. A. Stewart, M.D., Pittsburgh; D. P. Maddux, M.D., Chester; G. H. Wells, M.D., Philadelphia; J. M. Heimbach, M.D., Kane.

Report of Necrologist, W. F. Baker, M.D.

Annual Report of the Superintendent of the Allentown State Homœopathic Hospital, H. I. Klopp, M.D.

The reports from the local societies of the State through their representatives closed the morning session.

The scientific portion of the program was then taken up and a number of important practical papers presented and discussed with an unusual degree of interest. On Thursday morning the election of officers took place, which resulted as follows:

President, Dr. E. A. Krusen, Norristown.

First Vice-President, Dr. Wm. Hillegas, Philadelphia.

Second Vice-President, Dr. C. R. Haman, Reading.

Secretary, Dr. I. D. Metzger, Pittsburgh.

Treasurer, Dr. Ella D. Goff, Pittsburgh.

Necrologist, Dr. W. F. Baker, Philadelphia.

Censors—Dr. S. B. Moreland, Pittsburgh; Dr. M. W. Sloan, Philadelphia; Dr. J. W. Stitzel, Hollidaysburg.

Trustees—Dr. D. C. Kline, Reading; Dr. C. S. Raue, Philadelphia; Dr. J. M. Heimbach, Kane.

After final reports of Censors, Trustees, etc., had been submitted the meeting adjourned. The meeting was the largest and most interesting one ever held.

The Entertainment Committee of the Homœopathic Medical Society of the State of Pennsylvania had arranged many pleasing features which afforded great pleasure to those attending. Following is the program:

Tuesday afternoon, 4.00 to 6.00—Tea to the ladies at Mrs. C. H. Ruhl's home.

Tuesday evening, 8.30 to 10.30—Ladies were entertained by local talent in the ball room of the Hotel Berkshire.

For the Doctors—A Smoker in the Grill Room of the Hotel Berkshire, after the scientific program.

Wednesday morning, 9.00 o'clock—Trip over the Gravity (Mt. Penn) and Neversink Mountains. Courtesy of the Chamber of Commerce.

Wednesday afternoon—Tea and cards for the ladies, Berkshire Country Club.

Wednesday evening—Banquet, Doctors and wives, ball room, Hotel Berkshire. Entertainment, ball room, Hotel Berkshire. Dancing, ball room, Hotel Berkshire.

Thursday morning—Auto trip to Galen Hall, Wernersville, for the ladies.

Thursday afternoon—Trip to Berks County Fair.

Those acting on the different committees were as follows:

Reception Committee—Dr. D. C. Kline, chairman; Dr. A. S. MacDowell, Dr. S. L. Drebelbis, Dr. L. Leon Drebelbis, Dr. Margaret Schantz, Dr. G. I. Keen, Dr. Julia Waylan, Dr. M. L. Miller.

Exhibit Committee—Dr. C. R. Haman, chairman; Dr. E. K. Golding, Dr. P. L. Gerhardt, Dr. E. V. Light, Dr. G. W. Krick, Dr. G. R. Curry, Dr. Wm. Hillegas.

Publicity Committee—Dr. Ralph Bernstein, State chairman; Dr. Ray C. Klopp, local chairman; Dr. J. Glen Knauer, Dr. F. H. Massey, Dr. Wm. G. Kinsley, Dr. W. A. Haman, Dr. T. M. Snyder.

Dr. Margaret Schantz, chairman of Women's Entertainment Committee.

Mrs. I. D. Metzger, of Pittsburgh, Pa., was elected president of the Women's Homœopathic League.

The Germantown Homœopathic Medical Society held its regular monthly meeting at the Hotel Majestic, on Monday, September 18th, at 9 P. M. Dr. J. Edwin James entertained the members by presenting an interesting paper, the title of which was "Practical Points in Obstetrics." This was illustrated by lantern slides. Supper was served to a large number in attendance and the meeting then adjourned.

C. B. Hollis, M.D., Secretary.

Personals.—William Steele, M.D., announces the removal of his office to 1823 Chestnut street, Philadelphia. Diseases of heart and lungs; diseases of children. Hours: 9 to 11 A. M.; Sunday and other hours by appointment.

Francois L. Hughes, M.D., announces his removal to 1425 W. Girard avenue after September 1, 1916. Gynaecology. Office hours: 11 A. M. to 1 P. M.; 6.30 to 8.00 P. M., except Sunday and Wednesday evenings.

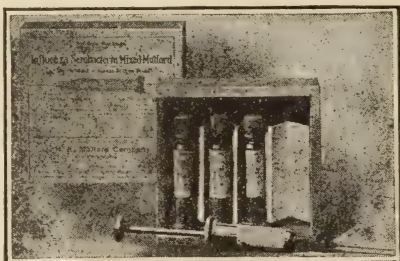
Preparedness.—Reed and Carnrick have issued an attractive pamphlet under the above title dealing with the nation's armament and with the subject of Preparedness in relation to the doctors' armamentarium and announce that they will be glad to send a copy to anyone writing for the same.

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<i>Staphylococcus aureus</i>	125	250	500	1000 million
<i>Streptococcus</i>	125	250	500	1000 million
<i>Pneumococcus</i>	125	250	500	1000 million
<i>M. catarrhalis</i> (group)	125	250	500	1000 million

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HAHNEMANN

COLLEGE NOTES

GOERINGER-20

Thos. B. Mills, '17, Editor.

The opening of the 69th Academic year of the Hahnemann Medical College was held in the college building Monday evening, October 2d, at 8.30 o'clock.

The meeting of the evening was opened with a selection by the Hahnemann Orchestra, after which the invocation and welcoming address was given by Rev. Dr. Floyd W. Tomkins, Rector of Holy Trinity Church, and a member of the Board of Trustees. The Hahnemann Glee Club then gave a selection, with its old, true form, after which Dean Pearson introduced the principal speaker of the evening, Dr. Wm. W. Van Baun, Professor of Dietetics in the Hahnemann Medical College, and President of the American Institute of Homœopathy.

Dr. Van Baun's theme for the evening was "The Spirit of Hahnemann." Dr. Van Baun's address impressed all present with its cultured and scholarly truths, which, without doubt, were inspired in him by an intimate and familiar knowledge of the writings and teachings of our great master, Samuel Hahnemann.

After music by the Glee Club, Dr. Krusen, President of the Pennsylvania Homœopathic Medical Society, gave a brief and interesting talk.

Dr. Robert L. Piper, of Tyrone, President of the Hahnemann Alumni Association, was the next speaker of the evening. We must say right off the reel that Dr. Piper is a humorist, an optimist, and a scholar, but space will not permit us to prove all our claims. Suffice it to say that Dr. Piper pointed out to us that there is one true, real, tangible example of perpetual motion (curious that we never associated our Dean Pearson and perpetual motion together before, isn't it?)

Secondly, Dr. Piper proved to us that it had been demonstrated to him that it was never too late to get married by Dr. ——— oh well, we won't mention any names, but Dr. John J. Tuller is still Professor of Neurology and Psychiatry.

Dr. Pearson, our Dean, closed the evening's program by announcing that work (his hobby) would begin for all classes on the following morning at 9 o'clock. An occasional sigh could be heard from different parts of the room when this announcement was made, but, regardless of the sighs, we believe that the majority of old students were anxious to get back in the trenches, and glad to be back in Old Hahnemann.

The meeting of the evening was closed by the singing of the Hahnemann song, after which a social hour was spent in welcoming and get-

ting acquainted with new students, and shaking hands with old ones who had returned from the highways, the byways, and the hedges.

Glee Club and Orchestra.

At a meeting of the College Glee Club and Orchestra, for the purpose of forming a more definite and better regulated organization, a set of resolutions was drawn up and adopted. The new organization is to be known as the "Combined Musical Clubs of the Hahnemann Medical College and Hospital of Philadelphia." Dues of 50 cents per year are charged each member, while a fine of 25 cents is imposed upon each member who is absent from a rehearsal, and a fine of 50 cents is imposed for being absent from a concert.

The officers of the organization elected were as follows: Advisory manager, Dr. Ralph Bernstein; business manager, Marshall J. Pierson, '17; secretary and treasurer, Robert E. Henderson, '17; Mr. Harold A. Taggart, '19, leader of the Glee Club, and Mr. Charles E. Seraphin, '17, leader of the Orchestra. Both last mentioned men are live wires, and both are efficient and competent men; and if the members of the Club give these men their support, which we know they will do, Hahnemann will have one of the best musical clubs in the city of Philadelphia.

Fraternities.

The Phi Upsilon Rho Fraternity held its opening smoker in the Grand Fraternity rooms, 1414 Arch street, on Tuesday evening, October 3d.

The Alpha Sigma Fraternity held its annual smoker at the Alpha Sigma House, 1900 Spring Garden street, on Thursday evening, October 5th.

The Phi Alpha Gamma Fraternity held its annual smoker in the Parkway Building, Broad and Cherry streets, on Friday evening, October 6th.

Young Men's Christian Association.

The Faculty and students of the Hahnemann Medical College should feel greatly indebted to the Central Branch of the Y. M. C. A. for the interest and co-operation that organization has shown toward our students. A list of rooming places which had been inspected and investigated by the Y. M. C. A.'s representatives was submitted to the students upon their arrival at the college.

A little book full of valuable information, with memoranda, etc., entitled "The Hahnemann Medical College," published by the Y. M. C. A., was given to each student by the Y. M. C. A. representative upon his arrival at the college.

Mr. Braden, Physical Director of Central Branch, gave a splendid address to the student body on Wednesday noon, October 4th. Mr. Braden clearly pointed out the value of keeping our bodies strong by proper exercises, at the same time demonstrating some "big muscle" exercises. Mr. Braden also invited the entire student body to spend an evening of inspection at the Y. M. C. A., followed by a swim in the pool. A great number of students took advantage of this invitation, and reported a splendid time.

It will be gratifying to our readers to learn that Drs. McEldowney, Fenimore and Truxl have been appointed to make all physical examinations at the Central Branch.

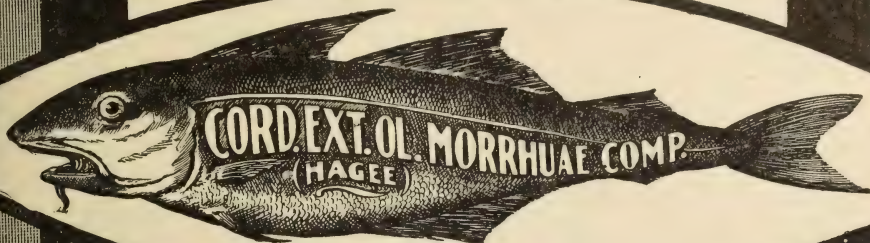
About the College.

Dr. Rufus B. Weaver attended the reception on the opening night,

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and how the hearts of the students thrill with love and respect when we again see our beloved teacher. Dr. Weaver says he is still one of the boys, and we believe it too, for he is as spry as ever and has opened the anatomical laboratory on time, and has everything in his department moving. It is hard for us to appreciate Dr. Weaver's wonderful services to us all.

Dr. McCartney addressed the students at the college at noon, October 18th, and arranged for the Glee Club to sing at the Students' Service to be held at the Arch Street Presbyterian Church on Sunday evening, October 22, 1916.

The Trustees of the Pennsylvania Homœopathic Medical Society met at the college on the evening of October 12th. Beside their usual business Dr. Heimbach, of Kane, retired as president, and Dr. Krusen took his place.

The Senior Class goes to Allentown the week of October 23, to receive its practical course in psychiatry, and will attend the clinics of Dr. Klopp and his staff at the Allentown State Hospital for the Insane.

The Hospital.

Our Hahnemann Hospital keeps pace with the college as regards improvements and progress. Practically the entire hospital has been overhauled and improved, and special attention has been given to Dr. Palen's new clinical rooms for ear work; also the clinical rooms of the nose and throat, medicine and neurological departments. This will help wonderfully to improve Hahnemann's already excellent facilities for clinical teaching.

Dr. Dudley Morton very recently returned from a summer's work at the front with the American Ambulance in France. The new and modernly equipped orthopedic dispensary awaits Dr. Morton as its clinical chief.

Dr. Wm. B. Van Lennep will hold two large clinics during the week of October 23d, before the National Congress of Surgeons. Admission to these clinics can be gained only by card.

Dr. Dinsmore, of Pittsburgh, attended Dr. Van Lennep's clinic on Wednesday, October 11th.

Senior Class.

The Senior Class is composed of forty live men. They are too busy a crowd to report much news, but after Thursday evening, November 9th, the boys expect to have something worth reporting—at least tradition handed down from other classes says Dr. Bartlett is some good entertainer.

The following class officers have been elected for the ensuing year: President, John H. Reading, Jr.; vice-president, Alfred R. Seraphin; secretary, Paul G. Atkinson; treasurer, James R. Skeoch.

Junior Class.

The Junior Class returned to college ten strong. All the boys look well, and report having spent a very pleasant summer.

Webb spent the summer on the Chautauqua Circuit. We sincerely hope it will not bring him as much criticism as it did William Jennings Bryan.

Tuthill returned from Buck Hill Falls looking fine. He has learned to smoke the "Million Dollar Cigarette."

Purcell spent most of his summer nursing—wet or dry we cannot tell.

He visited his Alma Mater before returning, and remembered us all with a card. Wellesley evidently has some attraction.

Coley and Dunlop—the inseparables—came back in “The White.” Coley spent the summer in West Philadelphia, while his partner spent most of his time along “Shadow Lawns.” Results will be seen later.

Roberts worked for Du Pont, furthering his knowledge in chemistry.

Roth is with us again. We wish him success with his athletic work as well as his medical work this winter.

Mandrachia came back strong. He spent his summer profitably on Long Island.

Zapf has joined our ranks. We welcome him and wish him success. He now belongs to a good class.

It was very gratifying to see the many improvements around college. The portraits in the halls look fine, and no doubt will be an inspiration to all the students.

Thanks to Dr. Bernstein for the sanitary drinking apparatus and the sanitary towels. They will be much appreciated by all, and improve the looks to new students and prospectives.

The annual election of officers resulted as follows: President, C. Harold Kistler; vice-president, D. Dunlap; secretary and treasurer, Chas. Tuthill.

From Dr. Haines' remarks on “Experience” we assume he's had experience. We hope he has lots left.

Sophomore Class.

October 2d found the Sophomore Class well represented, and the best part of it is that the good work has been continuing. Three new men have entered, Medico-Chi's loss being Hahnemann's gain. They are: J. K. Fisher, C. V. Hogan and R. C. Lumly. Wernert will not be here this year, the only one who failed to return.

Various things of interest seem to have happened to the men during the summer, as witness O'Neill's rotundity, and Krusen's sylph-like slenderness. Kistler did some good work by bringing a brother back with him, according to Dr. Weaver's remarks, the forty-third Kistler to enter Hahnemann. The class regrets that he cannot be one of us.

Variety is the spice of life, and the foundation of a broad man. This being the case, the men of 1919 should be “out there,” as many occupations were followed, not to say pursued, from selling the “present ever” (commonly called “Wear-Ever”) aluminum ware, by Geckeler and Hobart, to professional baseball by Twining. The only reason “Twink” didn't get his \$4,000 share of the World's Series returns was because Cincinnati wasn't possessed of his services for a sufficient length of time.

The class as a whole congratulate Prugh: and reiterate the remainder of Dr. Northrop's wish to the class upon the anniversary of his fiftieth birthday last year.

Seriously, the men look husky, are endeavoring to look intelligent, and have made the Jewish New Year, instead of January 1st, the date for the making of resolutions to do better work than last year.

Freshmen Notes.

The now present Freshmen Class, Dr. Gordon's class, have all, with a few exceptions, returned to dear Old Hahnemann. We did not merely return, but came back with an almost over-abundant supply of spirit. It is a two-fold spirit, because we are going to get all that is possible from

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Important Announcement

This is the last year (1916) that students will be accepted on the basis of one year of college work. After January 1918 two years of college credits will be required of students desiring admission to the medical course.

The College Grants Two Degrees. To successful candidates on graduation, namely, the degree of **Doctor of Medicine** and the Special degree of **Doctor of Homeopathic Medicine**.

Clinical Opportunities. The College has facilities for clinical opportunities that are unsurpassed. Hahnemann Hospital alone admitted and treated over 25,000 patients last year. The College also is affiliated for teaching purposes with the Children's Homeopathic Hospital, St. Luke's Homeopathic Hospital; West Philadelphia General Homeopathic Hospital; Allentown State Hospital for the Insane and the Municipal Hospital for Contagious Diseases.

A comprehensive system of clinical instruction in which ward and bedside instruction and individual work on the part of the student in the wards and in the laboratories, forms a large part of the course during the junior and senior years.

Special attention is given to the subject of homeopathic materia medica and therapeutics, the study of which is pursued throughout the entire four years of the medical course.

Post graduate instruction is offered to the profession throughout the year on clinical and laboratory subjects. For information address Hahnemann Medical College, 226 N. Broad Street, Philadelphia, William A. Pearson, M. D., Ph. D., Dean, Frank H. Widman, M. D., Registrar.

Hahnemann, and, secondly, because we are going to do all we can for her. We admit, however, that we are greedy, or a better and more diplomatic way of saying it: we are not losing anything, not even sleep, as is often evidenced in some of the lectures, if we can help it. For proof of this statement, you need only take a peep into either the Chemistry or Histological laboratories to be convinced. Our slogan is: "To be up and doing."

Speaking of college activities, we are happy to boast of having more men in the musical clubs than any other class. That's something, isn't it? That is not all; just wait and you will see in the Philadelphia newspapers: "Hahnemann graduates the best class in her history." That class will be the Class of 1920.

The following men were elected to offices for the ensuing year: President, Walker; vice-president, Mathewson; secretary, Ross; treasurer, Truter.

Pre-Medical Class.

The Pre-Medical Class, or Class of 1921 at "Old Hahnemann" is now two weeks old. It is a large infant for its age, and is suffering from "growing pains." Like Topsy, this class has no mother, but under the paternal guidance of Dr. Gordon is hard at work getting acclimated.

The fifty-three men who make up this class already feel and are responding to that influence best described as the "Spirit of Old Hahnemann." Cordiality of the men on the Faculty and in the student body has made the road easy and the load of getting acquainted light. Every man remembers the hand of welcome with the manly face in back of it that greeted him on the night of our opening exercises. And with the confidence derived from such a start is doing his best to learn and uphold the traditions of our dear old school.

The first effort as a class to do this was made on October 11th. The class met in the Physics Laboratory, and under the guidance of Dr. Gordon elected its officers for the year. Willis B. Day, of Utica, N. Y., was elected president; Leon W. Sage, of Batavia, N. Y., vice-president; C. Eugene Darby, of Ocean City, N. J., secretary, and Charles D. Miller, of Scottsdale, Pa., treasurer. These men are making an effort to get the "Honor System" in a form to present to the class. A class meeting will be held this coming week, when this and other matters will be presented. The Upper-Classmen of the college may rest assured that the Pre-Meds will do all in their power to follow out the good examples set for them.

One of the happy features of the first week were the "Smokers" given by the three fraternities of the college. These afforded the new men an opportunity to meet and know the other students sooner than would have otherwise been the case.

An honest effort is being made by the members of the class to support the Glee Club and Orchestra. The men have been at the "try-outs" and the "baby class" sure will be heard from in both organizations.

Most of the men come from either Pennsylvania, New Jersey, or New York States. However, one member comes from Kansas City, Missouri, and indeed "has to be shown." Two other men in the class come all the way from Nicaragua, Central America, and are trying hard to make good here.

As has been said before, the Pre-Medical Class is still very much in its infancy, but, like the old darkie's horse, is willing. Much may be expected of them, for they are trying hard, and sure will get there.

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THE HAHNEMANNIAN MONTHLY NEWS AND ADVERTISER

A Medical Newspaper

NOVEMBER, 1916

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Diseases of Children.—By Edwin E. Graham, M.D., Professor of Diseases of Children, Jefferson Medical College, Philadelphia; Pediatricist to the Jefferson Hospital and to the Philadelphia Hospital; Consulting Pediatricist to the Training School for Feeble-minded, Vineland, N. J.; Member of the American Pediatric Society, etc. Octavo, 902 pages, with 89 engravings and 4 plates. Cloth, \$6.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

In the preparation of this work the aim of the author has been to make it represent the most modern views upon each subject, and to present these in such a way that they may be immediately available to the busy practitioner as well as perfectly clear to the medical student. In the discussion of treatment no details have been overlooked, and the physician engaged in general practice may find herein the precise management of a typical case of any disease which he is called upon to treat. Infant Mortality, Heredity, and Environment, so interesting and important from the standpoint of the pediatricist, Fresh Air in the Treatment of the Healthy and Sick Child, and Puberty have been thoroughly discussed in separate chapters specially devoted to the subjects.

The subject of Infant Feeding has received particular attention; the preparation of milk mixtures, usually a vague subject to both the general practitioner and the student, is carefully explained, and the calculation of caloric and percentage feeding has been illustrated by formulas reduced to ounces. Diseases of the Gastro-intestinal Tract have been presented in full, and some of the most advanced ideas concerning diagnosis and treatment have been incorporated. Food Injuries, Chronic Constipation, Pylorospasm, and Pyloric Stenosis have received special consideration, a careful differentiation being made between the two latter affections.

A whole chapter is devoted to Diseases of the Liver, while Diseases of the Spleen are fully discussed, and enlargement of these two organs, a common condition in children, is carefully considered. In the chapter on Diseases of the Skin the aim has been to suggest for the most important skin lesions such therapy as is applicable to children. A special chapter has been devoted to Dentition, the author regarding this as a normal and physiological process in the course of normal development. Particular attention is also called to the articles on Influenza, Pertussis, Anterior Poliomyelitis, and Enlargement of the Thymus Gland.

A Text-book of Practical Therapeutics.—With especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, B.Sc., M.D., Professor of Therapeutics, Materia Medica and Diagnosis in the Jefferson Medical College, Philadelphia; Physician to the Jefferson Medical College Hospital; one-time Clinical Professor of Diseases of Children in the University of Pennsylvania. Sixteenth edition, revised and enlarged. Imperial octavo, 1009 pages, with 149 engravings and 17 plates. Cloth, \$4.75, net. Lea & Febiger, Publisher. Philadelphia and New York, 1916.

With the appearance of its new sixteenth edition, Hare's Practical Therapeutics enters upon another stage in its long and successful career. By reason of the ingenuity of its plan, the consummate skill with which it has been carried out, and the author's appreciation of the needs of the physician at the bedside, it has stood out conspicuously as a book which has never been approached in its field, and each successive issue has only emphasized and increased its usefulness.

In the present edition the official preparations of the new U. S. Pharmacopœia and the new British Pharmacopœia have been introduced; and every article has been revised in an attempt to bring the text into complete conformity with the views generally accepted by the best physicians of the day.

A Manual of Chemistry.—A guide to Lectures and Laboratory Work for Beginners in Chemistry. A Textbook specially adapted for Students of Medicine, Pharmacy and Dentistry. By W. Simon, Ph.D., M.D., Late Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, and in the Baltimore College of Dental Surgery; and Daniel Base, Ph.D., Professor of Chemistry in the Maryland College of Pharmacy, Department of the University of Maryland. Eleventh edition, thoroughly revised. Octavo, 648 pages, with 55 illustrations, one colored spectra plate, and 6 colored plates, representing 48 chemical reactions. Cloth, \$3.50, net. Lea & Febiger Publishers, Philadelphia and New York, 1916.

The degree of approbation accorded this work by the Medical, Dental and Pharmaceutical professions is shown by the demand which has exhausted ten previous editions.

This comprehensive work answers every need of all who are concerned with the medical bearings of chemistry. The new eleventh edition incorporates the additions to and changes in the new U. S. Pharmacopœia. A number of changes have also been made involving re-arrangement,

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addition and deletion of material. The section dealing with non-metals has been entirely re-arranged and much new material has been added; and a chapter on quantitative determinations by volumetric methods has been included in the section devoted to analytical chemistry. In a word, the new edition is up-to-date in every particular and the work continues to be the best manual of chemistry for teachers, students and practitioners of medicine, dentistry and pharmacy.

Protection for Old People Against Bronchitis.—With the onset of winter with its changeable weather, the old folks of reduced vitality and resistance, begin to suffer from bronchial inflammations. Prevention in these conditions is better than cure, and prevention lies in the employment of those agents that will add to the patient's bodily strength and increase the resistance of bronchial tissue to atmospheric disturbances. For this purpose Cord. Ext. or. Morrhuæ Comp. (Hagee) has been found of the utmost value not alone for its therapeutic influence but also by reason of the fact that it does not upset the stomach. Give it to your patients who suffer from bronchial attacks.

The Commonest of Human Ills.—Probably the commonest single ill of modern mankind is what in lay parlance is termed dyspepsia, or in more scientific circles, gastric insufficiency, peptic deficiency, aepsia, and so on *ad libitum*. The actual condition—the result of abusing the stomach by improper food, irregular feeding, bad habits, etc.—is a marked decline in the secretory activity of the gastric glands. The symptoms are legion but well summed up by the patient when he speaks of his suffering as “stomach trouble”.

Recognition of the true state of affairs leaves the physician but one course to follow, activation of the glands of the stomach. Bitter tonics, dilute acids and remedies galore have been used with varying degrees of success, but the remedy that has proven most uniformly satisfactory in restoring functional activity of the gastric glands is Seng. This is a trustworthy tonic to the stomach, a true secernent, that may be relied upon to restore the physiologic activity of the glands and thus overcome the distress and discomfort that make the gastric patient's life so miserable and burdensome. Have you some troublesome case of gastric insufficiency? You will be highly gratified at the results you can obtain with this useful remedy. Write for a sample to Sultan Drug Co., St. Louis, Mo.

The Sequelae of La Grippe.—Among all of the various acute and exhausting illnesses that afflict mankind, there is none that so generally results in distinct prostration as epidemic influenza, or La Grippe. Even the grippal infections which are uncomplicated or unaccompanied by serious organic changes are more than apt to leave the patient in a thoroughly devitalized condition after the acute febrile symptoms have subsided. It is for this reason that the treatment of La Grippe convalescence is of special importance. The anemic, debilitated depressed patient requires a systemic “booster” that will not only stimulate but revivify and reconstruct. It is distinctly wise, in such cases, to commence vigorous tonic treatment as early as possible, preferably by means of Pepto-Mangan (Gude), the hemic builder and general reconstituent.

Applicants for membership should sign the following blank and forward with check for Two Dollars to Dr. W. N. Hammond, 313 Weightman Building, Philadelphia, Pa.

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Application for Membership

Any Physician of good moral character, who has received the degree of Doctor of Medicine from some regularly incorporated Medical College, and who subscribes to the doctrine "*SIMILIA SIMILIBUS CURENTUR*," may be elected a member of this Society, upon recommendation of the Board of Censors. Dues—five dollars a year—two dollars the first year. Any Physician joining the State Society within two years after his graduation shall pay no dues the first year.

The undersigned, a graduate of _____
of the year _____, and practicing medicine at _____
in the county of _____, State of Pennsylvania, hereby makes application for
membership in the Homœopathic Medical Society of the State of Pennsylvania, and agrees to abide by its
Constitution and By-Laws if elected a member.

M. D.

_____, M. D.

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PENNSYLVANIA STATE NOTES.

Ralph Bernstein, M.D., State Society Editor.

The Germantown Homoeopathic Medical Society of Philadelphia held its regular monthly meeting on Monday, Oct. 16th, 1916, at nine o'clock in the evening, at the Majestic Hotel, Broad and Girard Avenue. Dr. C. S. Raue presented a paper the title of which was "The Diagnosis and Treatment of Acute Poliomyelitis". This paper brought forth a hearty discussion. There was a full attendance of members and the meeting was an enjoyable one.

C. B. Hollis, M.D., Secretary.

The Homoeopathic Medical Society of the 23rd Ward of Philadelphia held its regular monthly meeting at the office of Dr. E. S. Humphrey, 1925 North 32nd Street. The election of officers took place at this meeting after which a very interesting paper was presented the title of which was "Some Diseases of the Conjunctiva". This proved to be a very interesting feature of the meeting and was greatly enjoyed by a large number of members present.

J. D. Boileau, M.D., Secretary.

The Central Pennsylvania Homoeopathic Medical Society held its annual meeting on Thursday, Oct. 19th, 1916, at the Hotel Brunswick, Lancaster, Pa. An elaborate dinner was served at 1:30 P. M., after which the business meeting took place. The election of officers to serve for the ensuing year took place. Dr. John E. James, Jr., of Hahnemann Faculty, who was the honor guest gave a very interesting address on "Some Practical Points in Obstetrics," illustrated with lantern slides. This was highly entertaining and was thoroughly enjoyed by all present.

G. A. Sayres, M.D., Secretary.

The Women's Homoeopathic Medical Association of Pittsburg, Pa., held its first Fall meeting on Oct. 5th, 1916 and was in the nature of a house warming for the president, Dr. Mary E. Coffin, at her new home 736 Wallace Avenue, Wilkinsburg, Pa. Various reports from the State meetings were given by Dr. Anna Johnston and Dr. Ella Goff and various plans were made for the Winter's program. A thoroughly enjoyable time was had by all present, the meeting being quite interesting.

Anna Johnston, M.D., Secretary.

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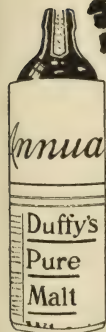
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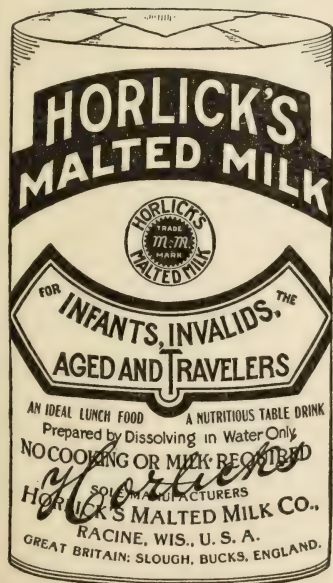
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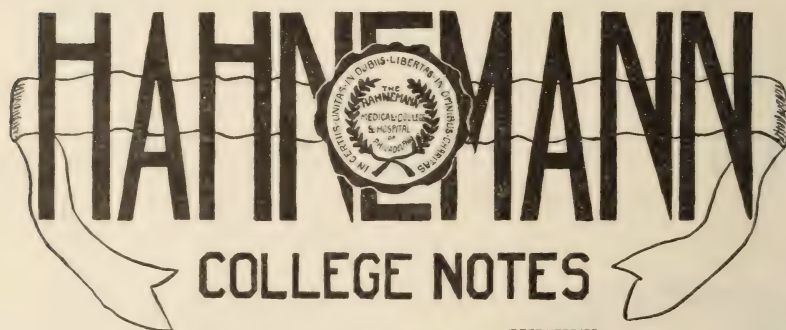
Woman's Homoeopathic League.—At the annual meeting of the League at Reading during the meeting of the State Society, Mrs. E. A. Krusen of Norristown, was elected President. By a mistake the name of Mrs. I. D. Metzgar of Pittsburgh was mentioned as the president of the League in the October issue of the Hahnemannian Monthly.

Personals.—Dr. John A. Brooke (Hahnemann College, Philadelphia, 1896.) Formerly house surgeon of the Hospital for Ruptured and Crippled, New York City, N. Y., has opened offices 407-408 Flanders building, Walnut and Fifteenth Streets, Philadelphia and will limit his practice to Orthopedic Surgery, fractures, dislocations and bone radiography.

Mrs. John O. Keeler announces the marriage of her daughter, Mrs. Beatrice Avery Driscoll to Dr. Nathaniel F. Lane, on Saturday, October 28th, 1916. Hudson Falls, New York.

Norman S. Betts, M.D., announces his removal to 1529 Spruce Street, Philadelphia. Gynecology and Obstetrics. Office hours: 11 A. M. to 1 P. M., 6 to 7 P. M., Sunday 10 to 11 A. M.

Dr. Mary E. Coffin announces her removal from 3837 California Avenue, North Side to 736 Wallace Avenue, Wilksburg, where she will continue the practice of Dr. Anna D. Varner, deceased.



GOERINGER-20

Thos. B. Mills, '17, Editor.

Dr. Bartlett's Banquet to the Senior Class.

If we believe ancient history, Epicurean is not a modern term. But hail: friends and brothers, the Senior Class of the Hahnemann Medical College has discovered a man who is second to none in the practice of medicine, and yet is an Epicurean, of such modern type that our ancient friends, if they were now alive, would have to take a back seat as regards a banquet.

What a surprise! The poor, hungry Senior Class never dreamed what was in store for them last Wednesday night. But we must quit our raving and get down to brass tacks, for no doubt you're wondering just what did happen to the Senior Class.

Although the writer feels humbly incapable and utterly at a loss for words to describe the jubilee as it deserves to be described, the story goes something like this:—

On last Wednesday evening, November 1st, the Senior Class, in response to an invitation from Dr. Clarence Bartlett, Professor of Medicine, assembled at the Union League Club, on South Broad Street, for a 7:00 o'clock dinner.

The name Union League needs no explanation to those who have visited Philadelphia, in fact to any one from any part of the country (not that you or they got on the inside) but suffice to say, the Union League Club is perhaps the most famous and exclusive club in the whole United States.

Well, we all arrived in due time upon the scene of action, and were cordially greeted by our beloved Professor, with that bland smile and hearty hand shake of Dr. Bartlett's which has not only brought assurance and confidence to thousands of sick patients, but also was sufficient to make the members of the Senior Class (who are not sick) feel perfectly at ease.

From the very moment of our arrival every comfort and desire that a fanatical Senior Class of medical students might expect was most carefully and minutely attended to by our host. And you who were not there cannot appreciate what all that last paragraph includes.

Shortly before entering the Banquet hall the students formed in line and were introduced in turn by Dr. Bartlett to Mr. Chas. D. Barney, President of the Board of College Trustees, Mr. Geo. W. Elkins, Mr. Walter E. Hering, Mr. John Gribbell, and Mr. Jos. S. McCollough, all of whom are trustees of the College, and last, but not least, we were greeted by Dr. Wm. B. Van Lennep, our beloved Professor of Surgery, to whom we needed no introduction.

At 7:00 o'clock we were introduced to the Banquet hall, and wonder of wonders! Such a table! Prepared for fifty plates, decorated in tune with the beauties of the season: Autumn leaves in all their beautiful coloring, together with yellow and white chrysanthemums, and the soft, mellow light from shaded candles gave us a picture of beauty we shall not soon forget.

After being arranged about the table before being seated, all joined heartily in singing the Hahnemann song (and I heard Mr. Barney say to himself "That's a peach of a song!"), after which we were seated, and on came the eats.

We won't attempt to describe the dinner in detail, for two reasons: First, because of the inability of the writer, and Secondly, because of the psychological effect it might have on some of the poor hungry underclassmen; but just a word of comfort to you unfortunates: If you work hard, maybe in the course of from one, two, to five years you too will get such a feed.

During the dinner hour we were entertained with music on Dr. Bartlett's splendid Victrola, and in many of the songs the class joined in the chorus, and made the old hall ring.

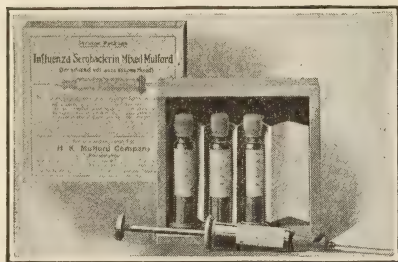
After dinner the Glee Club gathered around the piano and gave several selections, the most famous of which was the Chinese Honeymoon, sung by the Senior Class quartette, composed of Messrs. Walther, Reading, Henderson, and Stubbs.

At the request of Dr. Bartlett the members of the class gave a some-

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what novel and humorous entertainment in the form of various members relating the funny things which happened to them while in Allentown.

We also have a number of men who are noted as impersonators of various members of the Faculty, and each one of these unhesitatingly gave a demonstration; for example, DeCampos gave a demonstration of Dr. Pearson lecturing on his favorite subject; Castro impersonated Dr. Wait as demonstrating a woman suffering from Placenta Praevia, and also a short demonstration of Dr. Griggs as seen in the Lecture Room.

Stevenson, better known as "Steve" gave us a few Charley Chaplin stunts, together with an impersonation of Dr. Bigler in clinic, Dr. Ashcraft in clinic, and Dr. J. E. James in Lecture, while Junkermann assisted by Stevenson gave a demonstration of a case of Dementia Praecox Hebephrenic type.

Arthur King Lotz recited a very touching piece of poetry, while John Griffin Powell was trying to get in condition to give his favorite recitation, *The Vampire*, from Kipling. Stubbs, with great vehemence and feeling recited a satire on the German army, and Pilgrim sat in the corner blushing and refused to give his experience in Easton.

Reading, in order to clear his conscience, got up and gave us something as to the conduct of Atkinson while in Allentown (Paul was only recently married, you know.) Then Tongue sang a humorous song, something about an Irishman's wooden wedding, and last, but not least, Davis sang an Italian song, the words of which I do not recall at present.

So thus spent the evening in fun and merriment until the party was closed about 11:00 P. M., by a song entitled, "Oh, how we love Bartlett", after which we grasped the hand of our host in a hearty good-night, and with a deep and sincere feeling that Dr. Bartlett sure knows how to entertain and how to touch the hearts of the Senior Class of 1916.

Senior Trip to Allentown.

To say the Seniors were glad to go to Allentown doesn't express it—they were crazy to go. By the smiles on the faces you would have thought we were glad to get away from school work—but we weren't, for we were all eager to get some instruction from Dr. Klopp.

The special car left 69th St. Terminal at 8:00 A. M., and there were three or four—not mentioning names—who weren't there. We all wondered whether they were debating about this temporary visit, or whether their girls had detained them later the night before. Ding, Ding, we're off. Pinochle, Five Hundred, and Vaudeville sketches by Blood, and not to mention a Few songs, were the main features.

We arrived at Allentown, and located at the Hotel Allen; by the way the people watched us, one would have thought we were some new inmates arriving. After being introduced to our rooms (with all modern improvements???) we actually rushed for a Bethlehem trolley, and were off for State Hospital. Seraphin captained the bunch, and two by two, we marched the Boardwalk to the tune that Susie whistles.

We were received very graciously by Dr. Klopp, Dr. Hoffman, and Dr. Lang, then after being escorted to the clinic, Dr. Klopp lectured on Dementia Praecox—behind locked doors—for, you see, he didn't want the patients to hear what he was saying about them. Some of us seemed uneasy that first day, for you see, things are uncertain, and it is hard to get out you are once inside. In the afternoon Dr. Hoffman gave us a clinic. It was some good clinic. All the patients were happy, perfectly

contented, and really wanted to stay behind those locked doors more than we did. We found later that some of these patients had lungs and vocal chords; that one was a fighter; that one had strong affection for Gram, though she was dead fifty-six years; that several owned us, and that several wanted to go home (we did too, when we thought of our Hotel Allen, and our wonderfully restful rooms). There were politicians there; one told me personally that he was going to vote for Hughes: He also told me Kennell was a wonderful Doctor from Hahnemann—wonder how Kennell got the drag?

On the trip to the wards the first day one patient swore that "Dr. Powell" was dead, but next day when she saw him declared that she would never bake him any more cherry pies—which is probably true; as to Powell being alive—we can all assure you he is—fact is, very much so. One patient personally escorted one of us down the corridor, arm in arm, speaking the German language in a perfectly non-understandable way. It was hard to convince us of the pleasures, but—.

The first night, after looking over the main street, doing the movies, etc., mostly et cetera, we, or rather some of us, retired to bed. Sleep? No, because there was a very rude awakening, a volunteer fire organization—such as Seniors can be—clad in, well, its not wise to say, with a pitcher in one hand and a German H₂S bomb in the other, just naturally put out sleep, not to say one word about the other guests and the manager. Every morning we awoke to the fact that we had to wait one hour for service at breakfast, but the manager requested the Victrola to be started, no doubt to quiet us, or to quiet the noise.

Lectures and clinics each day at the Hospital, visiting the wards with the Doctors, wading through manic depressant insanity, involution melancholia, paresis, paranoi, and so the week went by. We were able to visit the entire hospital from the boiler rooms to the baths, and comment on the excellent system in use. Shh. . some of us got a skate on, but don't worry, Dr. Pearson, these were only rollers, and all behaved well considering—even at the dance. Things being dull on Wednesday, a theatre party was organized, "Maid-to-Order" certainly had some company. There were many kinds of insanity on the stage that some of us were not slow in diagnosing, but the whole trouble was that we let the audience in on it. On Thursday a dance was given at the Hospital, and you may be sure there was some fun: two of us forgot we were behind locked doors—and, well, that makes a difference to both nurses and us.

It's the same night. Two of our number rushed madly from the Hotel, and accidentally caught the Limited which did not stop at State Hospital; they naturally went on through, and—Easton is only limited by Trolley service to Allentown. There are others who made Pilgrimages to Easton, and Tongues are never stilled. Davis somehow heard, and of course, went to visit his old Alma Mater.

The last afternoon came, and we had coffee in clinic. All forms of insanity were demonstrated. Dancing was popular, although every now and then we had to take time to watch Castro with his take off on a Dementia Praecox. "I want to go home," was the expression, and every now and then it still reverberates in the college halls. After an interesting clinic we bade Dr. Klopp and staff good-bye, and started homeward; a special car waited us, and we all left Allentown a happy, but sleepy bunch.

Juniors.

One month has passed, and from the remarks heard after 2 o'clock

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MARVEL COMPANY, 44 E. 23d St., New York

Mondays, Wednesdays, and Fridays, the fellows are all enjoying their profitable work in the subclinics. We are now appreciating the opportunities of a small class.

While the Senior Class was at Allentown Dr. Bartlett introduced the class to the various wards of the hospital. He called it an "Inspection Tour," and it is needless to say, some of the members saw more than was necessary. We now await the palpation, percussion, and auscultation tours.

Dr. Bartlett introduced us as the most intellectual class that ever entered Hahnemann. He remarked that the result of the increased preparedness was academic rather than practical observation. We hope our class will overcome this difficulty.

During the month we found that one of our members has female veins. We can now account for his activity in favor of co-education at Hahnemann in the election last year.

Dr. "What is the character of stools in Cantharis?"

Materia Medicist of class—"Tenesmus with Stralisums."

Roth, the athlete of the class, came to light in the Sunday Ledger. Good work, "Doc"; we wish your team greater success as the season advances.

Anticipating the Republican landslide (a tip from Count Von Bernstorff) and the result of his stumping in German for the German Alliance—Count Von Hopp braved the wrath of the "Hungry Ten" by appearing nude from the collar up, on Monday preceding election.

Kistler intimated throughout college that he had a luncheon date at Kugler's with two young ladies—the same noon he was seen coming from Horn and Hardart's Automat. Why?

Psychologically speaking, the confirmation of the initiative along correlative lines has manifested itself in Professor Baker's neckwear—resulting in a complete hypnotic effect on the master minds of the "Intellectual Ten," this only being surpassed by Dunlap's shirts (Forrestville Bugle please copy).

Dr. Bigler delivered a series of lectures to the class on Fractures. They were much appreciated by all, and Tuthill was on time at all lectures after the first.

The annual class "Bankwet" will be held sometime this month at H. & H. Automat.

Sophomores.

The Class regrets very much that Dr. Weaver's illness prevents his meeting with them. His presence is an inspiration as well as the greatest source of instruction in Anatomy in the medical world.

We claim originality by being the first class of the Hahnemann Medical College to take a straw vote on the Presidential nominee, and the good common sense of the men was shown by the result, Hughes 19, Wilson 12.

Alumni will be glad to know that "Eddie," the amiable as well as venerable janitor of the dissecting room, attended a Halloween dance on

his 67th birthday, demonstrating that hard work never prematurely ages one.

Freshmen.

Did you ever hear of a war in which both armies were fighting for each other's welfare? Well, such is the case with us Freshmen and the Doctors in the various laboratories. We are, nevertheless, in the trenches, not ducking, but trying to catch every volley that is fired from the various guns. And they're some guns. Our losses, so far, have been comparatively small; two or three nervous breakdowns, cramped fingers, and an occasional vertigo. But what's that compared to our gains? I'll tell you, we like it; so, Doctors, do not cease firing.

You see, the argument began the first day of this term. We didn't know anything about "Histology" and the various other subjects. In fact, if we ever should have heard anyone mention the word "tissue" we immediately would have thought that person was tongue-tied and was trying to say "kiss you". And, of course, that in turn would have been food for thought. But, since Drs. Pearson, Steinhilber, and Fleming have begun their incessant firing, we have learned something. Of course, that was to be expected, since they were prepared, and we weren't.

At our last meeting the subject of a class banquet was discussed. It favorably impressed almost every member. Class spirit is what we want, and this is just a small way to cultivate it.

Pre-Medicals.

The Pre-medical Class has now reached the pubescent stage of its development. It has caught its stride in the swing of affairs at "Old Hahnemann," and really feels that it belongs. Of course, its voice cracks at times, and it feels "Gawky" at others, but nevertheless it has the feeling that it is firmly established as the fifth and bottom rung in this year's ladder of classes.

Much has been done as a class to get the right kind of a start, and the result of organized effort is beginning to show. Two class meetings have been held since the class was last heard from. A constitution drawn up by a committee consisting of vice-president T. W. Sage, chairman, F. E. Hanby, T. D. Dorsey, and accepted as drawn up, and presented to the class, has given it a basis to work from for its five years in college. That no time be lost in class meetings, and that matters of vital importance may be handled most efficiently, all such matters are first passed upon by the executive committee, consisting of the four class officers and our Pater Familias, Dr. Ralph Bernstein. Another committee, known as the Reporters Committee, made up of R. S. Anderson, Chairman, J. I. Heritig, H. A. Lichtenwalner, B. C. Scudder, looks after the obtaining of material for the Hahnemannian Monthly. The class has voted to pay a class due of fifty cents per year. This is to cover any incidental expenses, and at its graduation to leave a memorial of substantial value to the college.

Many of the class have been found spending spare moments in the rear seats at Senior clinics. And a Hahnemann pre-med may be found in almost any surgical clinic any Saturday afternoon. It isn't due to forwardness that this happens, but to the outcropping of an inherent desire to learn.

The sight of Dr. Weaver's subjects now fails to create that peculiar empty feeling that was so evident a few weeks ago. Some of the men

have even evidenced a curiosity as to what may be seen in the dissecting room. They frankly admit, however, that they expect to be caught when they take up Anatomy, and that it may be necessary to "see a man outside" before they become acclimated.

The Pre-meds think that the Institute is a fine thing; attendance at its meetings has been made a matter of college and class honor. At the first meeting this year, fifty, out of a class of fifty-six, attended; and some unavoidable reason kept the other six away.

To a man the class of 1921 is trying to be a credit to our college. It is hard plugging at times, but thanks to the kindly interest shown by both Faculty and upperclassmen, it has found its bearings and has tacked off into the wind.

Sparks from the Pre-Med Muffler.

"Red" Hunter cut a German lecture to act as a pall-bearer—"Yass-a-did."

Several cases of collapse were reported after the announcement of an exam in Biology.

Many of the class now know what it is to ride the "Goat" at fraternity initiations.

Mathematics—Dr. Gordon has expounded to us—"The root of all evil."

Hanby receives telephone calls only after college hours.

Eskin reached a class on time twice last month.

Burgess—Hypnotist.

Missouri has come to show us. He thspeaketh with a lithp.

About the College and Hospital.

Dr. Sarah M. Hobson of Chicago, Editor of the Journal of the American Institute of Homoeopathy, gave a talk to the entire student body on Tuesday, October 24th.

Dr. Hobson's talk dwelt mostly upon the success of the woman in the practice of homoeopathic medicine, in which she made a plea for co-education in our college. Dr. Hobson gave many convincing reasons why women should be permitted to study medicine in our college, and plainly showed that it was simply a matter of education of those opposed to something new.

On October 27th, Dr. S. B. Cameron, of Pittsburgh, gave a lecture to the students of the college on the physical, chemical, and therapeutical properties of radium, after which he gave a demonstration of radium in a dark room. Dr. Cameron's lecture and demonstration was not only interesting but educational.

During the week of October 23rd, the American Congress of Surgeons held its annual meetings in this city, and it is a matter of great pride for us to know that the surgeons of our college and hospital more than held their own in gaining honors in what was perhaps the greatest meeting of surgeons ever held in the world. And we are proud indeed that we have nineteen surgeons connected with our college who are members of the A. C. S.

On Wednesday, October 25th, Dr. Wm. B. Van Lennep held a big clinic at which over 200 surgeons were spectators, representing the following states and countries:—England, Honolulu, Hawii; Ohio, New

York, Massachusetts, Connecticut, Arkansas, Michigan, Utah, New York, Wisconsin, New Jersey, Illinois, California, Georgia, Delaware, Iowa, Tennessee, Minnesota, Washington, D. C.

Dr. Herbert L. Northrop did some wonderful brain surgery before great numbers of the visiting surgeons.

On Friday night, October 27, the Homoeopathic Surgeons of the City of Philadelphia gave a dinner at the Union League to the visiting surgeons of the Homoeopathic school; likewise the surgeons of the Nose and Throat departments gave a dinner to the visiting Nose and Throat surgeons.

Institute.

The opening meeting of the Hahnemannian Institute was held in the college building on Friday evening, November 3rd.

The meeting was called to order by President Walther, followed by a selection by the Hahnemann Orchestra, after which followed the roll call showing 130 members present. During the roll call it was suggested by President Walther that we quietly take a straw vote on the coming presidential election. The vote was cast as follows: Hughes, 69; Wilson, 53; Prohibition, 1; Socialist, 1. It will have to be admitted that our Hughes bunch sure did cheer some when we saw the results.

Next was the reading of the minutes of the last meeting of last year, after which a snappy and important business meeting was held. Then after music by the Glee Club President Walther introduced Dr. Wm. C. Hunsicker as speaker of the evening.

Dr. Hunsicker's subject for the evening was "Sex Hygiene," and the sex problems which it will be necessary for the young practitioner to solve.

Dr. Hunsicker's years of experience as a famous and successful specialist in venereal diseases has given him an intimate and positive knowledge of such a subject; and his appeal to our students to live clean sexual lives, together with scientific reasoning as to why they should live such lives, deserves the highest praise.

Dr. Hunsicker dwelt upon the sanctity of the physician's profession, and his office, and no doubt unravelled many subjects which had been puzzles to the students before, but will remain as helpful impressions throughout life.

From all comments we believe that Dr. Hunsicker's address to the students has been one of the best, if not the best, that ever has been given before the Hahnemannian Institute.

After music by the Orchestra the meeting adjourned.

Remember:

1. That Mr. Walter E. Hering has offered as a prize a Ten Volume set of Hering's Guiding Symptoms, valued at \$50.00, to the member of each of the four medical classes doing the best work in homoeopathic medicine and therapeutics.

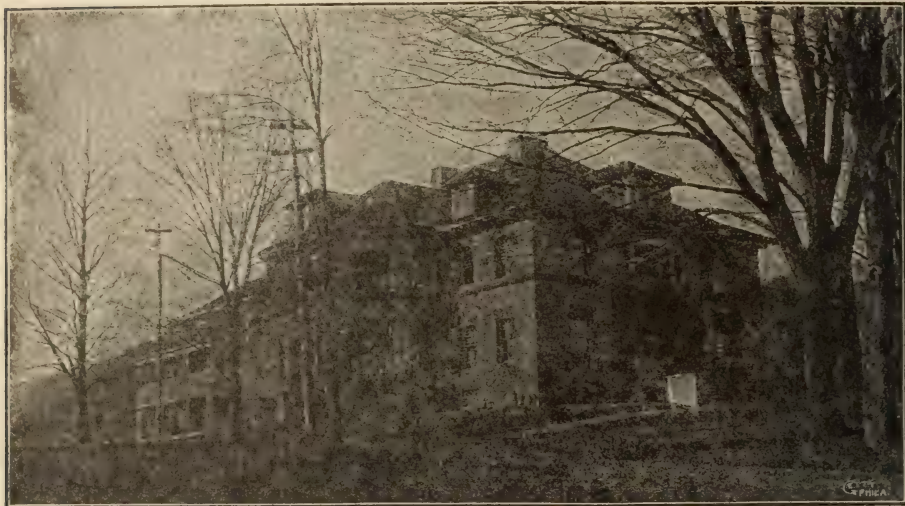
2. That it is your duty to attend every Institute meeting held this year, and do your part toward making it the best year in the history of the Institute.

3. That your Professor appreciates that "hand" when he comes in to lecture. Don't you be a dead one, and it will inspire him to give you his best.

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THE HAHNEMANNIAN MONTHLY NEWS AND ADVERTISER

A Medical Newspaper

DECEMBER, 1916

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The Practitioner's Visiting List for 1917.—Four styles: weekly, monthly, perpetual, sixty-patient. Pocket size, substantially bound in leather with flap, pocket, etc.; \$1.25, net. Lea & Febiger, Publishers, Philadelphia and New York.

The Practitioner's Visiting List embodies the results of long and studious effort devoted to its development and perfection, and is the finished product of over thirty years' experience in meeting and anticipating the physician's needs. It is a practical convenience which, once possessed, becomes indispensable to the busy practitioner.

It affords a simple and complete system for keeping the records of daily practice. In addition to the ruled pages for daily calls and their notes, general memoranda, addresses, cash account, etc., it contains specially arranged spaces for data desired for permanent record such as births, deaths, etc. The value of such records is best appreciated by the physician who has been suddenly confronted by the necessity of producing such data after the lapse of years and in the absence of an orderly system for their preservation.

It is issued in four styles to meet the requirements of every practitioner: "Weekly," dated, for 30 patients; "Monthly," undated, for 120 patients per month! "Perpetual," undated, for 30 patients weekly per year, and "60 Patients," undated, for 60 patients weekly per year.

Printed on fine, tough paper, suitable for either pen or pencil, and bound with the utmost strength in handsome grained leather, The Practitioner's Visiting List is sold at the lowest price compatible with perfection in every detail.

Syphilis.—By Loyd Thompson, Ph.B., M.D., Physician to the Syphilis Clinic, Government Free Bath House; Visiting Urologist to St. Joseph's Hospital; Consulting Pathologist to the Leo N. Levy Memorial Hospital, Hot Springs, Arkansas; First Lieutenant, Medical Reserve Corps, United States Army; Member of the American Urological Association and the American Association of Immunologists. Octavo, 415 pages, with 77 engravings and 7 colored plates. Cloth, \$4.25, net. Lea & Febiger, Publishers, Philadelphia and New York, 1916.

In preparing this volume for the profession it has been the aim of the author to present the subject of syphilis in as practical a manner as possible. For this reason a considerable portion of the work is devoted to diagnosis and treatment. The chapter on laboratory diagnosis is made especially full, as today the desirability, in fact the necessity, of laboratory aid is more evident for the successful treatment of syphilis than for any other disease. Matters of theoretical and historical interest, of course, are discussed, but usually only when they have some bearing upon the practical handling of the subject.

Syphilis, today, no longer is to be considered a genito-urinary disease, nor a dermatological disease nor a disease belonging exclusively to any specialty; but is to be thought of as a disease, requiring knowledge in all fields of medicine. As Osler so aptly remarks, "Know syphilis in all its manifestations and relations and all other things clinical will be added unto you." It is, however, the genito-urinary specialist upon whom the burden of responsibility should rest, for he it is who, as a rule, sees syphilis in the beginning, and if his work is well done there should be no need for that of others in the majority of cases.

The author has drawn freely from the literature of syphilis at his command for his material and has added his personal views and experiences. The illustrations are, to a large extent, from photographs taken by the author of cases in his own practice.

Physician's Visiting List.—Blakiston's Publishing Company, Price \$1.25.

The Physician's Visiting List is now in its Sixty-Sixth year of Publication and therefore needs no introduction to the medical profession in the United States. The present edition follows out the general style of the former ones and in addition to spaces for daily lists of patients and charges, it contains the usual information in regard to antidotes for poisons, table of doses, the isolation periods in infectious diseases and a new dose list prepared in accordance with the new United States Pharmacopoea.

PENNSYLVANIA STATE NOTES.

Ralph Bernstein, M.D., State Society Editor.

The Homoeopathic Medical Society of The County of Philadelphia held its regular monthly meeting at Hahnemann College, Thursday Evening, Nov. 9th, 1916, at eight-thirty o'clock. Many important topics were discussed in addition to the usual scientific program, which was as follows:

"The Progress of Orthopedic Surgery and Analysis."—John M. Brooke, M.D.

FELLOWS' Compound Syrup of Hypophosphites

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Not a new-born prodigy or an untried experiment, but a remedy whose usefulness has been fully demonstrated during half a century of clinical application.

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THE FELLOWS
MEDICAL MANFG. CO. LTD.
25, CHRISTOPHER ST.
NEW YORK

"Military Wounds and Wound Healing."—Dudley J. Morton, M.D.
The meeting was an enjoyable one both scientifically and socially.

J. M. Kenworthy, M.D., Secretary.

The Clinico-Pathologic Society of Philadelphia held its regular monthly meeting at Hahnemann College, on Saturday Evening, Nov. 18th, 1916, at 8:30 o'clock. After several interesting clinical cases were reported the scientific program was presented as follows:

"Neuro-Paralytic Keratitis."—Dr. P. A. Tindall.

"Congenital Absence of One Lung."—Dr. G. M. Golden.

"Malignant Degeneration of Fibroids of the Uterus."—Dr. D. B. James.

"The Absolute Indications for Operative and Non-Operative Treatment of Goitre."—Dr. D. Roman.

The different subjects brought forth hearty discussions which were entered into by a large number present.

B. K. Fletcher, M.D., Secretary.

The Germantown Homoeopathic Medical Society of Philadelphia held its regular monthly meeting on Monday evening, Nov. 20th, 1916, at 9 o'clock at the Majestic Hotel, Broad Street and Girard Avenue. Dr. George W. Mackenzie presented a well prepared paper the title of which was, "The Differentiation of Otitis Media and Otitis Externa," the discussion of the same was opened by Dr. G. I. Palen, Dr. J. V. F. Clay and Dr. H. S. Weaver. After a social hour the meeting adjourned.

Charles B. Hollis, M.D., Secretary.

The Society of Homoeopathic Therapeutics and Materia Medica of Philadelphia held its regular monthly meeting at Hahnemann College, Tuesday Evening, Nov. 28th, 1916, at 9 o'clock. The scientific program which was quite interesting was as follows:

"A Consideration of Iodium."—Wm. B. Griggs, M.D.

"The Use of Guaicum in Respiratory Diseases."—H. S. Weaver, M.D.

"The Use of Belladonna in Respiratory Diseases."—A. S. Ironside, M.D.

The meeting was well attended and an enjoyable time was had by those present.

Donald Macfarlan, M.D., Secretary.

The Society of Surgery, Gynecology and Obstetrics of Philadelphia held its regular monthly meeting at Hahnemann College, Wednesday Evening, Nov. 22nd, 1916, at eight-thirty o'clock. Joseph Colt Bloodgood, M.D., F.A.C.S., of Johns Hopkins University, addressed the society taking as his subject "The Problems of Cancer," illustrated with lantern slides. Several interesting clinical cases were reported after which the meeting adjourned.

J. M. Kenworthy, M.D., Secretary.

The Homoeopathic Medical Society of Chester County held its regular monthly meeting at the Phoenix Hotel, Phoenixville, Pa., on Thursday, Nov. 9th, 1916, at 1 P. M. A large number of physicians and friends attended and were awarded a hearty welcome. Dr. Albert Garner and Dr. Howard Terry added to the scientific program by presenting two very interesting papers, these were heartily discussed after which a social hour was spent.

J. Oscar Dicks, M.D., Secretary.

The Homoeopathic Medical Society of The 23rd Ward of Philadelphia held its regular monthly meeting at the office of Dr. R. S. Summers, 2606 North 12th Street, where a large number of physicians met and discussed a number of important topics. A well prepared paper on "Chorea," was presented and proved to be an interesting feature of the meeting. The full number of members attended and an enjoyable time was had by all present.

J. D. Boileau, M.D., Secretary.

The Homoeopathic Medical Society of Delaware County held its regular monthly meeting at the County Home, Lima, Pa., on Thursday, Nov. 16th, 1916. The scientific program was as follows:

"Experiences in the Recent Epidemic of Acute Poliomyelitis Anterior."
—Dr. E. L. Clark.

"The Metamorphosis of a Common Cold."—Dr. G. C. Webster.

The meeting which was quite an enthusiastic one was attended by a large number of members.

G. C. Webster, M.D., Secretary.

The Central Pennsylvania Homoeopathic Medical Society held its regular monthly meeting at the Brunswick Hotel, Lancaster, Pa., on Thursday, Oct. 19th, 1916. The Censors reported favorably the name of Dr. W. A. Streater, of Harrisburg, Pa. The election of officers took place at this meeting which resulted in the following: Pres. Dr. H. H. Rhoades, of Middletown; Vice-pres. Dr. J. T. Burnite; Secretary and Treasurer, Dr. R. L. Perkins. Reports of the State Society meetings were given by Drs. Moyer, Mann and Hartman. After a lengthy discussion on "Infantile Paralysis," Prof. John E. James of Hahnemann College, Philadelphia was introduced to the society and delivered an excellent lecture on "Some Practical Points in Obstetrics," which was illustrated with lantern slides. Dr. James was ably assisted by Dr. Clemmer. A lengthy discussion followed, the same being opened by Drs. Hartman, Snyder and Prizer. Much interest was shown at this meeting by the large number of members present.

G. A. Sayres, M.D., Secretary.

The Hahnemann Medical College and Hospital Training School For Nurses held its Graduating Exercises, on Thursday Evening, Nov. 9th, 1916, at eight o'clock. The Rev. McLeod M. Pearce, D.D., pronounced the invocation after which Mr. Paul Roberts sang a solo which was followed by a selection from Hahnemann College Glee Club. Dr. Morris Golden then sang a tenor solo after which Rev. McLeod M. Pearce, D.D., addressed the graduates. A very beautiful violin and cello selection was rendered by Dr. F. O. Nagle and Dr. Carlos DeCampus. A vocal duet by Miss Ethel Niethammer and Dr. Wayne T. Killian was a pleasing number. Mrs. J. M. Steele announced the graduates after which Mr. C. D. Barney presented each graduate with her diploma. The presentation of class pins was made by Miss E. J. Hood and Mr. C. D. Barney presented the prizes. Following are the names of the graduates: Misses Mary E. Reynolds, Oxford, Pa.; Ruth M. Mattes, Philadelphia; Anna M. McNally, Bristol, Pa.; Martha J. Hamel, Reading, Pa.; Gertrude G. Copeland, Philadelphia; Ellen E. Kinney, Pottsville, Pa.; Elizabeth O. Howe, Woodstown, N. J.; Letitia F. Heppard, Woodbury, N. J.; Mary E. Kline, Philadelphia; Anna W. Fisher, Sewell, N. J.; Caroline H. Peterman, Philadelphia and Charlotte Jacobs, Oak Lane, Pa.

Socials:—One of the most enjoyable entertainments afforded the surgeons of North America during their stay in Philadelphia, where they held their Seventh Annual Clinical Congress, during the week of Oct. 23-28, was that of a gathering of about seventy-five prominent surgeons and physicians, at the Union League, where they were the guests of Dr. Wm. W. Van Baun, who had prepared an excellent program. The occasion was in every way a most enjoyable one. The following are a number who were present: Drs. G. D. Bliss, Dorchester, Mass.; F. W. Bliss, Boston, Mass.; C. W. Bush, Boston, Mass.; Clarence Bartlett, Philadelphia; N. S. Betts, Philadelphia; Ralph Bernstein, Philadelphia; W. D. Culin, Philadelphia; H. C. Cheney, Palmer, Mass.; J. V. F. Clay, Philadelphia; W. G. Crump, New York City; L. T. Adams, Philadelphia; F. L. Emerson, Boston, Mass.; J. D. Elliott, Philadelphia; J. E. James, Philadelphia; H. G. Keith, Yonkers, N. Y.; J. F. Kelso, Bloomington, Ill.; A. Van Loon, Albany, N. Y.; H. P. Leopold, Philadelphia; G. L. LeFevre, Muskegon, Mich.; W. N. Hammond, Philadelphia; D. P. Maddux, Chester, Pa.; G. F. Martin, Lowell, Mass.; G. W. McDowell, New York City; W. A. Pearson, Philadelphia; J. L. Peck, Scranton, Pa.; D. Roman, Philadelphia; E. T. Smith, Springfield, Mass.; J. H. Schall, Brooklyn, N. Y.; G. A. Shephard, New York City; I. G. Shallcross, Philadelphia; A. C. Tenny, Chicago, Ill.; Wm. B. Van Lennep, Philadelphia; G. A. Van Lennep, Philadelphia; H. Ware, Scranton; W. R. Williams, Philadelphia and H. S. Weaver, Philadelphia.

The Chester County Homoeopathic Hospital and Training School For Nurses held its first Commencement Exercises at the New Century Club House, on Tuesday Evening, Nov. 14th, 1916, at eight o'clock, when five bright and happy nurses completed their course of training and who no doubt will reflect much credit upon this institution which is just in its infancy but has grown steadily and prosperously since its opening about three years ago. Keen interest was shown by those interested in the institution, there being present upon the stage besides the nurses, the Board of Managers, Pres. of the County Auxiliary and Pres. of the local branch and the staff of physicians among whom were Dr. J. Oscar Dicks, Dr. Charles R. Palmer, Dr. S. LeRoy Barber, Dr. S. A. Mullin, Dr. Levi P. Hoopes, of West Chester; Dr. Hughes and Dr. Gregg, of Kennett Square, Pa.; Dr. M. Mercer, of Downingtown, Pa.; and Dr. Hamilton, of Malvern, Pa. Rev. Jay R. Dickerson pronounced the invocation after which Mr. George W. Conway, President of the Board of Managers, introduced the speaker of the evening, Dr. Herbert L. Northrop, who in a bright and happy way addressed the graduates. It was plainly seen in what high esteem Doctor Northrop is held by those interested in the institution by the ovation given him. After two very pretty vocal selections by Mrs. Frederick Dutt, President Conway made a short address and then presented the diplomas to the graduates, after which Rev. Dickerson pronounced the benediction. A reception for the nurses and their friends followed which was largely attended. Following are the names of the graduates: Misses Florence Irene Chalfonte, Helen Pepper O'Conner, Hanna Foster Craig, Irene Mildred Hartshone and Kathryn Gilland.

Personals:—L. Willard Reading, M.D., announces the removal of his office and residence to the S. W. Cor. of Fifteenth and Pine Streets, Philadelphia, Pa. Hours: 9 A. M. to 12 M., 6:30 to 7:30 P. M. Electro and Spinal Therapy.



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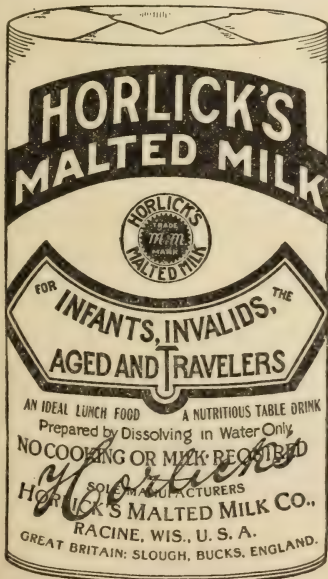
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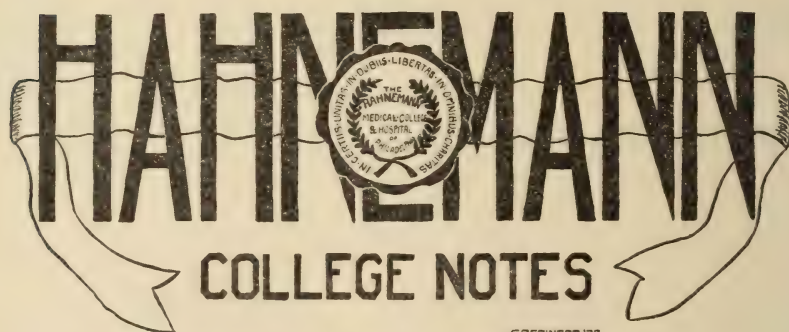
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The Increase of Tissue Resistance.—The importance of increasing tissue resistance is best appreciated when one is called upon to treat a serious infection in a run-down person. Thus a pneumonia or bronchitis is so much more dangerous in an aged or debilitated person whose tissues have lost their usual power to throw off disease—that is, resist germ invasion.

For this purpose cod liver oil is of the utmost utility but an essential point is to choose a preparation that not only contains the active medicine and strengthening properties of the oil but which also is so palatable that its administration may be continued over long periods of time. Cord. Ext. ol. Morrhuae Comp. (Hagee) is such a product. A generation of doctors have used it and learned to rely upon it.

For Sale.—High Frequency Electric Campbell coil in A-1 condition; two obstetrical bags fully equipped; two pairs of axis traction forceps and some other instruments. Terms very reasonable. For information address X. Y. Z., care of Hahnemannian Monthly, 1807 Chestnut Street, Philadelphia, Pa.



GOERINGER-20

Thos. B. Mills, '17, Editor.

Congress of Surgeons.—The American College of Surgeons met in Philadelphia the week of Oct. 23rd. Over two hundred visiting surgeons attended Dr. Van Lennep's clinic on Oct. 25th and the register shows many not of the Homoeopathic school from widely separated localities. Many prominent surgeons stated that the clinics at The Hahnemann Hospital were the best in the city.

Our students were sent to the Allentown Homoeopathic Hospital during the meetings of the College of Surgeons and very favorable reports have been made in regard to the work there.

The Interstate Federation of Homoeopathic Medical Societies of New York and Pennsylvania met at Binghamton, New York, on Nov. 9th. Four representatives of the New York Homeopathic College were present and I was the only representative from Hahnemann. About sixty Homoeopathic physicians were present. Several are preceptors of students now in college. The views of The Hahnemann Medical College were shown. Dr. F. W. Roberts of Port Clinton was elected President and Dr. P. J. Lewert of Scranton, Secretary-Treasurer. The Alumni of

Scranton and vicinity are lending one of our students money for his tuition.

On Nov. 10th a few hours were spent at The New York Homoeopathic College and at The Rockefeller Institute.

The New York Homoeopathic College has made many important improvements in the last year. The Anatomical Laboratory has been completely renovated and is now in splendid shape. Dr. McAllister is an excellent anatomist, but, of course, not equal to our beloved Dr. Weaver. Dr. McAllister not only teaches Anatomy in this laboratory to students of The New York Homoeopathic College but also to those of some Dental College and, for the first time this year, to students of some Chiropractic School.

The New York College has ninety premedical students this year; about sixty freshmen, twenty sophomores, sixty juniors and sixty seniors. The small sophomore class is due to the one year college requirement.

Dr. Anson Hill (Hahnemann 1910) is doing splendid work at The New York College. He is Professor of Clinical Diagnosis and works with the seniors in the wards and has personal charge of the clinical laboratory which corresponds to our Hering Clinical Laboratory.

Improvements have also been made in the Department of Chemistry and the Department of Bacteriology and Pathology. The Trustees and Faculty of The New York Homoeopathic Medical College are making an earnest effort to comply with every requirement for an A class college and expect to have this rating in a short time.

After this year no premedical course will be given as the New York Regents will not allow credit for preparatory work done in medical colleges. The Hahnemann Medical College of Philadelphia will have the task of compelling the New York Board of Regents and the New Jersey authorities to accept credits earned in our premedical year. We can do it but it means work. We have a premedical course which is superior to the preparatory courses given by many colleges whose credentials are satisfactory to these Autocrats. Our demands are just, so let us demand our dues.

Premedical Work.—Dr. Gordon, our Instructor in Physics, was recently injured by an automobile and is now in The Naval Hospital. Dr. W. A. Schmidt, a graduate of the University of Pennsylvania and a teacher in Central High School has been temporarily engaged to give instruction in Physics. Dr. Hopp has changed his hours to help Dr. Schmidt.

Our premedical class numbers fifty-four which is four more than we desire. It is difficult to adjust our laboratories to this number of students but we are doing our best. Fifteen additional microscopes have been added and we hope to have all our laboratories capable of accommodating fifty students. This is the ideal number and some day we should have fifty students in each class and all our laboratories equipped on this basis. Unfortunately, the freshman class in 1918 will be very small because we will then require two years of preparatory work. It is now of the utmost importance to keep in close touch with various high schools and colleges and actively solicit students for 1918.

Many members of our Board of Trustees and Faculty are college men. Why cannot each be a committee of one to bring in a student for the freshman class of 1918? We want fifty. I know of but three now. Will you bring one more?



The Specific Treatment of Lobar Pneumonia

Immune serum treatment in lobar pneumonia has passed the purely experimental stage.

Lobar pneumonia is caused chiefly by the pneumococcus, of which there are three different fixed types. Antipneumococcic Serum prepared by the Mulford Laboratories is obtained from horses which have been injected with the three fixed types of the pneumococcus.

Forty per cent of all cases of lobar pneumonia are caused by type 1, and lobar pneumonia caused by this type is the most amenable to serum treatment, while types 2 and 3 are less amenable to serum treatment. Antipneumococcic Serum Polyvalent Mulford is highly potent in its protective power against lobar pneumonia caused by pneumococcus type 1, and also contains antibodies to the other types—2 and 3.

Intravenous injection of 50 to 200 c.c. is advocated by prominent authorities to insure immediate action.

Antipneumococcic Serum Polyvalent Mulford is furnished in syringes of 20 c.c. each, and in ampuls of 50 c.c. for intravenous injection.

Further information sent on request.

Pneumo-Serobacterin Mulford is an efficient prophylactic agent against lobar pneumonia. Wright suggests doses of 1000 million pneumococci, followed by subsequent doses of 1000 million, for prophylactic purposes.

Pneumo-Serobacterin Mulford is supplied in packages of four graduated syringes, A, B, C, D strength, and in syringes of D strength separately.

Syringe A 250 million killed sensitized bacteria
Syringe B 500 million killed sensitized bacteria
Syringe C 1000 million killed sensitized bacteria
Syringe D 2000 million killed sensitized bacteria

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Manufacturing and Biological Chemists

Possibly it would be wise to distribute a few free scholarships among our various colleges for this year. What do you think of this plan?

SENIORS.

The Seniors, as usual, have been so busy trying to be present and on time before and after five o'clock, that little of more than passing interest has impressed itself on their dignified temperamentalities. However, their perfection of mental training of the past four years is sometimes broken into by lapses of short duration; as one of the class prescribing for that "all-gone feeling," scratches his head and answers, "Herpicide, 3rd."

A future M.D. greeting his patient: "Well, how are you this morning?" Patient: "Very well, thank you." Dr. Brief, writing on the sheet "No complaints": "Well, I hope you get well."—Exit.

We are still successful in reaching the "Midnight Clinics," even to our sacrificing the Institute and the harmony of the Musical Clubs to heed the call of "Wanted Immediately."

With the first of our last subsection exams in progress, and the class now trying to forget good times already dimming away to most of the Allentown visitors, we hope to continue as happily the rest of our "Greatest Year."

On Thursday evening, November 9th, the Senior Class met at the home of Dr. Bartlett to discuss the first paper of the year. We were held in suspense for some time as the main speaker of the evening, Robert B. Brown, D.C., arrived late; I say main advisedly for practically all those present had something to say before the evening was over. The paper was an excellent one and well-rendered. In fact, Dr. Bartlett remarked that it was worthy of being published. The subject was "Chiropractic," Bob being a graduate of the Universal Chiropractic College, therefore the D.C. After the reading of the paper there was an interesting discussion, as you can well imagine. Bob, although enthused with his subject, was willing to admit its shortcomings, as well as to proclaim its virtues. All were sorry when ten o'clock came, at which time discussion closed.

DR. GRIGGS' CLINIC ON POLYOMYELITIS.

When an exceptional treat is given to members of the Senior Class by an exceptionally good man, we like to tell the others about it and give credit where credit is due.

Dr. Griggs' clinic held recently at the Children's Homoeopathic Hospital for the medical section of the Senior Class cannot receive too high a word of praise.

Dr. Griggs, who is Director of the Hering Laboratory, in our college, and a member of the medical staff of the Children's Homoeopathic Hospital, is one of the best informed men in the country on acute anterior polyomyelitis, having had an exceptional clinical experience in the past with that disease in the Children's Hospital, and during the recent epidemic of that disease, Dr. Griggs spent a portion of the summer in New York City, where the disease was making such havoc, studying in conjunction with some of the greatest medical investigators of the day.

The clinic was preceded by a lecture in which Dr. Griggs took up

the theories as to the cause, mode of transmission, pathology, clinical symptoms, and results of the disease, together with the classification of the various forms, and the modern treatments of all schools of medicine. After this the section was conducted to a ward containing fifteen children, all suffering from recent attacks of the disease, and demonstrating the various degrees of physical impairment.

Dr. Griggs demonstrated the methods of physical examination by which the extent of the impairment could be learned, calling special attention to certain peculiarities and symptoms which follow the disease, and at the same time pointing out the indications for the Homoeopathic remedy which had been prescribed in each case.

The members of the section were given the privilege of making personal physical examinations of the children, and to examine the records and charts of each child, which showed the care and treatment received during the acute stages, and while confined in the Municipal Hospital.

One thing in particular impressed the students, and that was the marked improvement shown by the records of those children who had been given a carefully selected Homoeopathic remedy, over those who had received either empirical medical treatment or little or no treatment at all.

Dr. Griggs' clinic certainly impressed the students who attended it with two more very important facts: 1. The unquestioned value of the carefully selected homoeopathic remedy in all diseased states; 2. The rare opportunity and abundance of clinical material available for teaching purposes at the Hahnemann Medical College.

JUNIORS.

Two months have passed, the Junior Class is neck deep in work. We now realize what a difference there is between the Sophomore and Junior years.

The Junior Class is much pleased to read Dean Pearson's call for absentee blanks, regularly signed and executed, from some of the pre-medical class. It is time some of the embryos realize their position around Hahnemann.

SOPHOMORES.

The Class desires to thank Dr. Rufus B. Weaver for his interest in the fellows outside of the Classroom. Dr. Conwell's lecture, "Acres of Diamonds," is one of the best things to be heard, and we appreciate Dr. Weaver's kindness in giving us the opportunity to hear it.

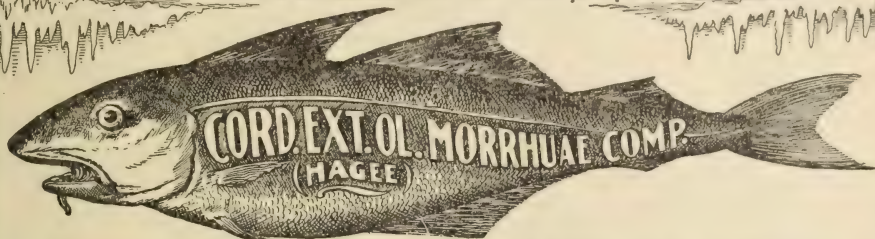
The Class wondered why Dr. Hopp tried to break the tops of the desks with the oil immersion lenses, until it was decided he couldn't count, and that Dr. Wurtz, in the Private Laboratory, was keeping tally.

FRESHMEN.

It hardly seems possible that the Christmas season, which almost completes the whole first college term, is upon us. The reason for this term having passed so quickly, as we embryonic scientists well recognize, is that time well-filled seems very short while passing. Our time surely has been very well filled by our professors, who surely practice the old

Fortify the weak against wintry blasts

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precept, Moments are Golden. Though often we have felt that we were rushed or crowded, yet taking a review of this Christmas season, we feel that we have had a very good start in our medical career, and that this large amount of work is better preparation for that work which awaits us a few years hence, as busy practitioners of our chosen profession.

PRE-MEDICALS.

The Pre-medical class that started this year as "Old Hahnemann's" "Baby Class" has now developed into its "long pants" stage, and feels very dignified about it. They have passed through any number of quizzes, and are lining up for those much dreaded "mid-years." No one in the class boasts about his ability to pass them, but the square-jawed determined expression the members carry speaks volumes for the patient teaching of the Faculty.

The oral examinations will be new to many of the men. Much "mid-night oil" has been burned these past few weeks in preparation, and by the time the exams come the Pre-meds hope to be able to think and talk straight under the strain.

We are now anxiously counting the days until Christmas. My, my, won't "she" be proud of her "medical man" when he alights from the train with a big professional smile on his face. But don't spoil Christmas by reminding her that you are only a Pre-med.

It is just a matter of a few weeks when the Pre-meds as a class will be as efficient smokers as the other students. Some of us have tasted the weed for the first time, and of course, like it. And practice makes perfect.

Jack Toomey is out of the hospital and feeling very much O. K.

Gogen was married on Election Day. Here's to you, old man, and more power to ye.

RECENT HAPPENINGS AND NEWS.

Dean Pearson attended a meeting of the Federation of the Homoeopathic Medical Societies of Pennsylvania and New York, held at Binghamton, N. Y., on November 9th, and it is gratifying to note that Dr. P. J. Lewert, of Scranton, an Alumnus of our college, was elected secretary and treasurer of the Federation.

A recent report from the Scranton Homoeopathic Hospital states that Drs. L. B. Roberts and R. H. Armstrong, of last year's graduating class who are serving their internships there, are doing splendid work. We are always glad to hear such good reports from our graduates, for upon their good work and success hinges the fame and success of Hahnemann as a teaching institution.

Dean Pearson visited the New York Homoeopathic Medical College recently and reports that the New York College is progressing splendidly, having an enrollment of 90 Pre-medical men in the present class.

Dr. Pearson reports also that many improvements have been made at the New York College, among which perhaps the most important has been the changes and improvements made in the anatomical laboratory.

Dr. Anson Hill, Hahnemann '09, is Professor of Clinical Diagnosis in the New York College, and is having marked success as a teacher.

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JANUARY, 1916

No. 1

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MEDICAL SOCIETY OF THE STATE OF
PENNSYLVANIA

Editor

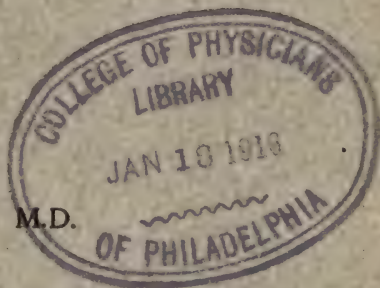
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State Society Editor

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VOL. LI

FEBRUARY, 1916

No. 2

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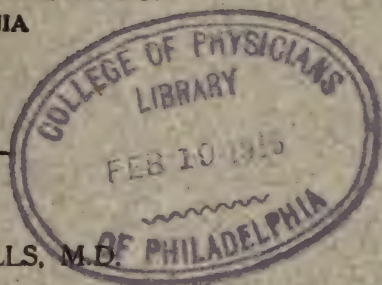
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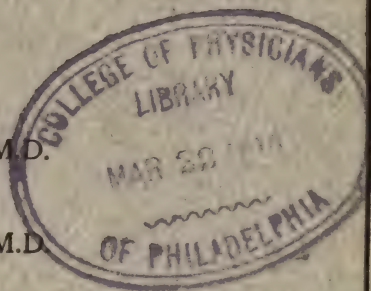
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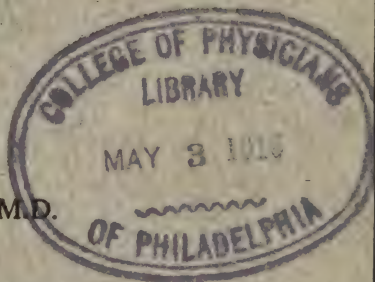
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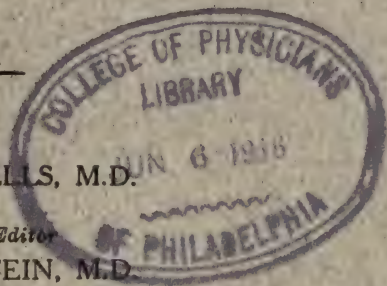
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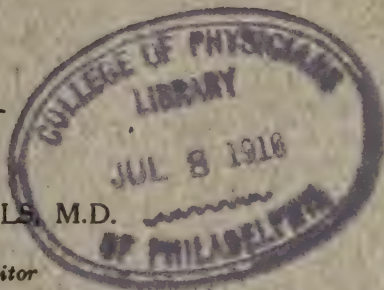
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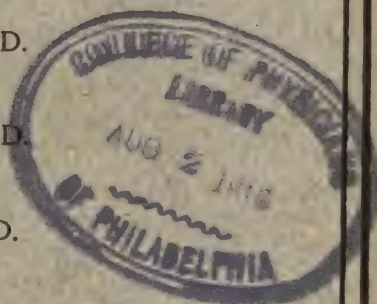
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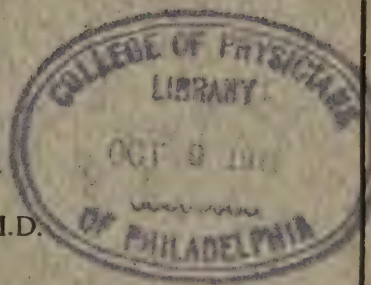
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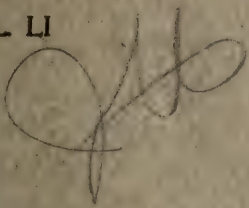
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